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ATTITUDES OF FEMALE AND MALE NURSES TOWARD MEN IN  
NURSING: A REPLICATION AND COMPARISON STUDY

by

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## ABSTRACT

Since an earlier nursing shortage in the 1970's there has been a small but significant movement of men into registered nursing. At the same time, there has been a strong feminist movement which has expanded overall career opportunities for women. This shift in career goals for both sexes has increased the potential for gender-based competition. Registered nursing is one of the careers where gender-based competition has the potential for occurring. A study by Fottler (1976) concluded that: (a) female nurses generally hold positive attitudes toward male nurses, and b) those female nurses who expressed negative attitudes were younger, with limited professional exposure to men in nursing. Fottler suggested that the basis for these negative attitudes might stem from a combination of this limited exposure to male nurses and perceived inequities of dispersal of rewards toward the men. This supported the theories of proximity as expressed by Tubbs and Moos (1977) and equity proposed by Adams (1965) as an extension of exchange theory postulated by Homans (1961) and Blau (1964).

A third issue which has persisted since the 1970's, is role-strain experienced by men entering nursing (Bush, 1976; Fottler, 1976; Greenberg & Levine, 1971; McPhee, 1984; Vouzden, 1980). The factors related to this strain are: (a) limitation in the scope of practice based on the male nurse's gender; (b) pejorative responses from

family, friends, and upon initial contact with patients and social contacts; and (c) resistance of female nurses toward men in the profession.

This study was designed to help identify the potential for gender-based competition by assessing the attitudes of both male and female registered nurses toward men in nursing. Factors considered were: (a) the affect of proximity to male registered nurses, b) gender-based equity of exchange, and (c) the role of the male in registered nursing.

Five hypotheses were proposed to test the theories under study in this research. First, registered nurses generally hold positive attitudes toward male registered nurses. Second, registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses hold generally more positive attitudes toward men in nursing than do less experienced nurses. Third, registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses perceive more exchange equity between male and female registered nurses than do less experienced registered nurses. Fourth, male registered nurses perceive that female registered nurses generally hold positive attitudes toward men in nursing. Finally, male registered nurses perceive the profession as a rewarding career with fewer limitations on the scope of practice and potential for advancement, based on gender-specificity, than do female registered nurses. A replicative, comparative design was utilized based on work

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done by Fottler in 1973 and reported in 1976. The study was expanded to include the male nurses' perception of self, and their perceptions of female nurses' attitudes toward their presence in nursing.

The accessible male and female populations were all registered nurses currently licensed to practice in the Western New York geographic area, and who appeared on the listings of the Continuing Nurse Education Department of the sponsoring university. The sampling frame contained 25,100 names consisting of 753 males and 23,347 females. Random samples of 100 males and 300 females were selected utilizing a table of random digits (Polit & Hungler, 1987, p. 124).

Each participant was mailed a self-administered questionnaire consisting of an introductory letter, a demographic data section, and a five-point Likert scaled, Nurse Attitudes Assessment Schedule. The first ten items on the assessment schedule were those used by Fottler in 1973. The remaining 37 items were added to support the expanded scope of this research. The range of possible scores was from 47 to 235 for the total survey. Hypothesis specific subsets were established to test each of the theories identified for this study.

T-tests, Pearson Product Moment Correlations, and multiple regressions were used to analyze the data for this research. Statistically significant differences ( $p < 0.01$ ) were noted between male and female registered nurses' attitudes toward men in the profession. Significant differences ( $p < 0.01$ ) were also noted between the male and female responses concerning the males perceptions of attitudes held by the women toward them. No significant and

meaningful findings were made concerning proximity to male nurses, perception of equity or inequity of exchange, and perception of nursing as a rewarding profession. Those independent variables showing any significance ( $p < 0.05$ ) could not explain more than 8 percent of the variance for the population sample studied.

The analysis identified a negative shift in attitudes of female registered nurses toward male registered nurses, while the male registered nurses held positive attitudes toward men in the profession. Proximity to male nurses and the perceptions of equity or inequity of exchange do not directly affect the attitudes of either male or female nurses toward men in nursing. Finally, neither male nor female registered nurses identified the profession as a viable and rewarding one.

STATE UNIVERSITY OF NEW YORK AT BUFFALO  
SCHOOL OF NURSING

MASTER'S THESIS APPROVAL FORM

This is to certify that Ralph Edward Minton, in the Graduate Program, School of Nursing, has successfully completed his research project entitled, ATTITUDES OF FEMALE AND MALE NURSES TOWARD MEN IN NURSING: A REPLICATION AND COMPARISON STUDY in partial fulfillment of the requirements for the degree of Master of Science.

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## DEDICATIONS

I would like to dedicate this thesis to my parents, Edward R. Minton and Mabel M. Minton, who have continuously stressed the importance of education and encouraged my continued personal and professional development.

This thesis is also dedicated to my spouse, Beth, for her unending support and understanding through twenty years of marriage, military life, and completion of two professional degrees.

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## CHAPTER I

## INTRODUCTION

There has been considerable interest in the effect men have had on the registered nursing profession. The predictions from the late 1960's and early 1970's were that an increase in the number of men in registered nursing would have an upgrading effect on working conditions, salaries, and public perceptions of professional status (Silver & McAtee, 1972). The second major area concerned the effect the nursing profession would have on the men who entered it. The concern was related to the issues regarding personal identity, role conflict, and perceptions of the male in a female-dominant profession (Greenberg & Levine, 1971; Levine, 1983; McPhee, 1984; Schoenmaker & Radosevich, 1976).

During the same time period there was a strong feminist movement which has resulted in vastly expanded career opportunities for women concomitant with an increased potential for gender-based career competition. The movement of women into numerous male stereotyped careers has been somewhat counterbalanced by an increased awareness of the men, and of some significant movement by men into previously female-dominant professions (ANA, 1985; Fottler, 1976; Nursing Census NLN, 1986; Silver & McAtee, 1972). One of the careers in which this gender-based competition has the potential for occurring with sufficient observability and assessment is registered nursing.

### Statement of the Problem

While each gender's responses have been studied independently, few studies have attempted to directly compare male and female responses toward men in registered nursing. It is interesting that after 20 years of significant change in the society and the profession, no one has asked the men how they perceive themselves as members of nursing, nor attempted to ascertain their attitudes toward men in nursing. If Rogers' (1961) theory that peoples' actions and attitudes are based on their unconscious feelings is correct, then one way progress for nursing as a profession may occur, is to bring those unconscious feelings into conscious light.

### Statement of the Purpose

This study was designed to help identify some of these attitudes and the potential for gender-based competition by assessing the attitudes of both male and female registered nurses toward men in nursing. Factors to be considered are: (a) the affect of proximity to male registered nurses, (b) gender-based equity of exchange, and (c) the role of the male in registered nursing.

### Theoretical Framework

This study is a replicative and comparative study based on research done by M.D. Fottler in 1973. His main concerns dealt with the attitudes of female registered nurses toward males in the profession and whether or not their attitudes were affected by the demographic variables of age, marital status, level of education, area

of socialization, type of employing organization, position held, and amount of contact with male nurses (Fottler, 1976).

Fottler (1976) used a ten item, five-point Likert scaled attitudinal survey schedule from which he obtained individual survey item mean scores, and individual participant total scores. His study identified that female registered nurses held generally positive attitudes toward men entering the profession, and that the demographic factors used in the regression analysis showed no statistically significant correlation with the attitudinal score. He did note that 25 percent of his sample expressed negative attitudes towards male presence in nursing. These negative attitudes were expressed by the younger nurses who had limited contact with male registered nurses, or who perceived potential gender-based discriminatory practices by the employer in favor of the male nurse (Fottler, 1976). Based on the historical fact of a strong feminist movement in this country over the past 15 years, it appeared appropriate to reassess female nurses' attitudes toward men in nursing with particular attention paid to the related factors of proximity and equity of exchange.

#### Proximity

Tubbs and Moos (1977) noted that one of the simplest determinants of attraction is geographic closeness. Translated to the working environment of the registered nurse, this theory of proximity proposes that the greater the exposure of female nurses to male registered nurses, the more positive their attitudes will be toward the males. Tubbs and Moos further state that everything being equal, the more

closely individuals are located geographically, the more likely they are to think positively of each other. There is also a tendency to minimize or overlook less desirable traits based on continued physical closeness over time, as occurs within a working environment. Another factor acting in conjunction with proximity, is the increased opportunity for active communication (Tubbs & Moos, 1977). The nature of nursing practice tends to foster communication between nurses and this, added to an increased physical exposure to men in nursing, might have a positive affect on attitudes toward men in the profession. In other words, as the opportunities for communication and frequency of interaction increase between individuals, so does the likelihood of positive attitudes toward one another.

Tubbs and Moos (1977) point out that similarity, coupled with physical proximity also increases the potential for liking, or positive attitudes toward another. Numerous studies have identified that, regardless of gender, individuals who enter nursing hold similar ideals concerning work and a desire to be in a humanitarian service (see for example Alvarez, 1984; RN, 1983; Robinson, 1973a; Schoenmaker & Radosevich, 1973; Wray, 1980). Therefore, proximity plus the factors of increased interaction and perceived similarity of ideals would all tend to support generally positive attitudes on the part of women toward men in nursing.

#### Equity of Exchange

Tubbs and Moos (1977) caution that individuals with similar attitudes may have similar goals which could lead to competition and

to outright hostility. Fottler (1976) had suggested that another possibility accounting for the younger female nurses' negative feelings toward male nurses was a perceived inequity of exchange that favored the men. This view is supported by later evidence indicating that men comprise 3 percent of the active registered nurse population, but hold approximately 25 percent of the upper level management and educational positions in nursing (ANA, 1985; Fottler, 1976; Nursing Census NLN, 1986).

Exchange theory was initially proposed by Homans (1961) and Blau (1967). Within this theory, it is proposed that an individual will work with another in an activity if the anticipated rewards exceed the personal cost of the association. It is important to note that the interaction between individuals or groups will continue so long as each participant envisions an equal or greater return than cost relative to the association (Blau, 1967). Therefore, if as a result of men entering nursing this leads to increased pay, improved working conditions, and improved professional status with equal opportunity for advancement for both men and women, then the expectation is that female nurses will have positive attitudes toward men in the profession. However, if there is a perception of unequal opportunities based on gender, within this perspective it is anticipated that there will be negative attitudes toward the group gaining the most profit, in this case, the men.

Homans (1961) approached the situation of unequal distribution of rewards through the use of the term "distributive justice." This

concept of equity theory proposes that unequal rewards can be accepted by the individual or group so long as the exchange is based on an accepted norm that greater investment in the association should be coupled with greater reward. Thus, this concept may be used to explain why, as individuals, we are likely to accept the condition in which those more senior, more knowledgeable, or having higher status within the work place and society are entitled to greater financial and social returns (Homans, 1961). However, Homans also stated that the concept of distributive justice does not hold when individuals or groups of equal status are not rewarded equally. This disruption of distributive justice leads to disruption of the association and establishes competition. Therefore, if male and female registered nurses are equally qualified for promotion, but the promotions tend to be awarded to the males, competition will exist and negative attitudes towards the males is to be anticipated. The disparity only increases if the males are less than equally qualified, but still retain the increased share of promotions, pay, or other rewards.

Adams (1965) extended equity theory to address unequal distribution of rewards without drawing on the concept of distributive justice. According to Adams the distinguishing characteristic of exchange is that the results may be perceived as "just" or "unjust." There is a comparative process inherent in the development of expectations and therefore a perception of justice or injustice. Injustice is felt, or inequity exists when, "a person perceives that the ratio of his outcomes to inputs and the ratio of another's

outcomes to inputs are unequal" (Adams, 1965, p. 280). Adams further stated that the presence of inequity will motivate an individual to reduce the inequity and the strength of the motivation is directly proportional to the magnitude of the inequity experienced. These proposals may be applied to the nursing practice situation in the following way. If female nurses do not perceive any inequity of exchange, they will tend to express positive attitudes towards men entering nursing. However, if inequity is perceived, negative attitudes will tend to be expressed.

#### Role

The third area under consideration is the role of the male in registered nursing. Hardy (1978) provides two key role theory concepts that help to elucidate the situation of individuals whose functional role performance is not sanctioned by the established societal norms. The first concept is that of "role-stress" which is seen as a condition exerted by the social structure on the individual who has stepped over the established role boundary. Nursing has become stereotyped as a female profession in this country. Therefore, any male who ventures into nursing would be operating outside of the socially accepted norm. Different factors that contribute to role-stress have been identified by numerous researchers. Role-stress may result from pejorative remarks, restriction of the scope of practice in the work setting (i.e., assignment to predominantly male patients), frequent incorrect professional identification, and outright resistance by female nurses (Fottler, 1976; Greenberg & Levine, 1971;

Robinson, 1973a). The second concept developed by Hardy (1978) was that of "role-strain," which is the subjective response experienced by the individual to role-stress. According to Hardy (1978), role-strain can be reduced by decreasing the social interaction to limit the negative effects. For men in nursing, it might be movement into specialty areas such as intensive care settings, emergency and trauma services, administration, and education. Although the individual has retained a position in nursing the change of practice setting allows decreased deference to the physician, increased capacity for dominance over professional practice, and increased autonomy (Alvarez, 1984).

The primary theoretical assumptions in this study are as follows: First, if an individual is seen by peers as fulfilling the requirements of a particular role, (for example, a clinical nursing role), then the individual should be aware of peers' positive attitudes toward him/her. If Fottler's (1976) findings, that female nurses generally hold positive attitudes toward men in the profession, are correct, then the men should perceive that these attitudes exist. The second area of role investigation centers around men identifying that nursing is a rewarding career with few limitations on the scope of practice and potential for advancement.

#### Research Questions

Since this is, in part, a replication of Fottler's 1973 study, there are three predominant questions to be considered. First, do female registered nurses in the late 1980's still maintain a generally positive attitude toward male registered nurses, or has this changed

over the past 15 years? Secondly, do less experienced registered nurses with limited exposure to male registered nurses still hold more negative attitudes toward men in the profession? And finally, to what extent do registered nurses hold the perception of gender-based professional inequity, with employer discrimination in favor of male registered nurses? Since 1985, the number of women entering nursing has decreased significantly (Nurses, 1987). Concomitantly, a renewed interest in the recruitment of males into the profession, similar to that of the early 1970's, could be anticipated. A key factor in its success will be the male nurses' attitudes toward male nurses and toward nursing as a viable professional choice. Therefore, additional questions are, do male registered nurses hold generally positive attitudes toward men in the profession? Do male registered nurses see nursing as a viable, rewarding profession for men? And finally, do male registered nurses perceive that female registered nurses hold generally positive attitudes toward them?

#### Definitions

For the purposes of this study, the following definitions were utilized.

Perception is defined as an individual's interpretation of statements concerning actions and non-verbal behaviors toward him/her. Perceptions may generate either positive or negative emotional responses (feelings) within the individual. The individual may not be consciously aware of these emotional responses (Rogers, 1961). These unconscious feelings may have a profound affect on the individual's

ability or desire to continue in a particular profession, or to recommend entry into the profession to others.

Attitudes are defined as expressions of both overt and covert statements, actions, and non-verbal behaviors exhibited by one individual toward another (Rogers, 1961). For the purposes of this study, attitudes are defined as the subjects' total scores achieved on the Nurse Attitudes Assessment Schedule.

Gender-specific competition is the desire for a particular professional specialty or promotional advanced position. The specialty or position is deemed to be more difficult to attain based solely on the individual's gender relative to the established gender norm of the professional specialty or promotional advanced position (Greenberg & Levine, 1971; Brown, 1986).

Professional specialty is any recognized distinct body of nursing knowledge for which additional education, certification or registration is required. For example, one may have a professional specialty in intensive care, cardiac care, operating room, emergency services, trauma care, anesthesia, women's health, and so forth.

Promotional advanced position is any title or office available in the profession of nursing which designates the individual as bureaucratically superior to general staff duty nurses and which usually incurs a significant increase in earning power. An advanced position, for example, is that of Assistant Head Nurse, Head Nurse, Clinical Supervisor, Assistant Chairperson/Chairperson Department/Division of Nursing, Vice President/President Division of

Nursing and so forth.

An experienced registered nurse is considered to be any registered nurse who has 2 or more years of cumulative experience in active nursing, regardless of chronological age, or current nursing position held.

An inexperienced registered nurse is considered to be any registered nurse who has less than 2 years of cumulative experience in active nursing, regardless of chronological age, or current nursing position held.

Proximity to male nurses is measured by the number of male nurses with whom an individual has worked during the course of his/her nursing career. The greater the number of male nurse working associations, the greater the level of proximity.

Positive attitude is established when the total sample and/or gender-specific mean total scores for the hypothesis being tested are greater than the absolute mean total scores for the specific hypothesis. Tables of the hypothesis-specific absolute score ranges, including the mean total scores, can be found in Chapter IV.

Negative attitude is established when the total sample and/or gender specific mean total scores for the hypothesis being tested are less than the absolute mean total scores for the specific hypothesis. Tables of the hypothesis specific absolute score ranges, including the mean total scores, can be found in Chapter IV.

Absolute mean total score is calculated by adding the absolute minimum obtainable score to the absolute maximum obtainable score and

dividing by two. For example, the Fotall subset includes the first 10 items contained in the Nurse Attitudes Assessment Schedule. The absolute minimum score would be 10 (10 x 1) and the absolute maximum score would be 50 (10 x 5). The absolute mean total score for the Fotall subset is 30 (10 + 50/2).

#### Hypotheses

The following hypotheses were proposed:

1. Female registered nurses hold generally positive attitudes toward male registered nurses.
2. Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses hold generally more positive attitudes toward men in nursing than do less experienced nurses.
3. Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses perceive more exchange equity between male and female registered nurses and less gender-specific competition than do less experienced registered nurses.
4. Male registered nurses perceive that female registered nurses generally hold positive attitudes toward men in nursing.
5. Male registered nurses perceive the profession as a rewarding career with fewer limitations on the scope of practice and potential for advancement based on gender-specificity than do female registered nurses.

### Methodology

Information in this section is designed as an abbreviated overview of the research method utilized. Detailed research design and methodology are provided in Chapter III.

### Research Design

This is a replicative and comparative study based on the work of Myron D. Fottler in 1973 who examined the attitudes of female registered nurses towards male registered nurses. His sample consisted only of randomly selected female registered nurses drawn from the Western New York geographic area. The sample for this study was also randomly selected from the Western New York geographic area but includes both male and female registered nurses. A questionnaire consisting of an introductory letter, a 25 item demographic section, and a 47 item Nurse Attitudes Assessment Schedule (NAAS) was developed for this research (Appendix A). One of the objectives was to administer Fottler's ten item Attitudinal Survey Schedule to both male and female samples and then compare the results obtained from the women in this study with those obtained by Fottler in 1973. Therefore, the first 10 items of the NAAS are the ones used by Fottler in 1973. Results of the male nurses' responses were compared with those of the female nurses from the current study.

Thirty-seven additional items have been added to the NAAS to measure the additional factors of equity of exchange, proximity to male nurses, and role of the male in nursing. The complete 47 item

NAAS may be found in Appendix A. The respondents were asked to indicate their agreement based on a five-point Likert scale ranging from 1—"strongly disagree" to 5—"strongly agree." All subjects were mailed the self-administered 47 item, five-point, Likert scaled Nurse Attitudes Assessment Schedule.

Hypothesis number one is associated with the individual respondent's overall score, for all 47 items, on the assessment schedule. Hypotheses two through five are associated with a specific subset of attitudinal statements contained in the NAAS. These subsets can be found in Appendix B. All statements were intended to elicit an attitudinal response from the participants.

The scoring obtained from the Nurse Attitudes Assessment Schedule was designed to yield one overall score and five additional sub-scores based on a specified subset of statements contained in the NAAS. Four of these sub-scores are directly related to hypotheses two through five. The fifth sub-score was obtained for the attitudinal statements used by Fottler in his 1973 research. Fottler's statements comprised the first ten items in the NAAS used for this study. Selected demographic variables were used in multiple regression analysis.

Participant anonymity was strictly maintained.

#### Data Analysis

All data were computerized, reviewed and verified to ensure accuracy. All statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSSX, version 3.0, 1988).

The initial analysis consisted of frequencies and statistics for the total sample on all items contained in the demographic portion and the Nurse Attitudes Assessment Schedule. Frequencies obtained for selected items from the demographic portion were used to establish aggregate groups during later stages of analyses. Frequencies and statistical information obtained from the Nurse Attitudes Assessment Schedule were also obtained on a gender-specific basis to help identify differences in direction of response for individual items and hypothesis-specific subsets. Individual items on the Nurse Attitudes Assessment Schedule had their mean scores expressed within a range of 1 to 5 to ease comparison with the Likert agreement scale.

Recoding for inverse scoring was required on 22 items contained in the Nurse Attitudes Assessment Schedule prior to computation of mean total scores for the entire instrument and hypothesis-specific subsets. These mean total scores were obtained for the entire sample and for the gender-specific groups. Results are used to compare the responses between the gender groups via t-test analysis. Comparison was also made between the current female sample with the Fottler 1973 female sample on the first 10 items.

Multiple regression analysis was performed using age, gender, marital status, education level, geographic area of socialization, size of employing organization, position held, number of male nurses worked with during the nursing career, length of time employed as a registered nurse, length of time as a registered nurse (including unemployed time), and area of nursing specialization as the

independent variables. The total Nurse Attitudes Assessment Schedule mean score and mean total scores for each of the subsets were used as the dependent variables.

#### Significance of Study

Once again, registered nursing is experiencing a shortage. However, current predictions indicate that with the present reductions of women entering the profession, the requirements for hospital staffing will not be met. Scherer (1987) indicated that the shortage should have been anticipated based on a declining birth rate over 20 years ago. This has been further compounded by the more recent reduction in college enrollment and vastly more open job market for women (Nurses, 1987; Scherer, 1987). The increased job market availability for today's women was aptly identified by Eli Ginzberg in a keynote address to the American Nurses Association (Nurses, 1987). Ginzberg stated that 35 percent of all newly licensed physicians are women and 40 percent of new law school entrants are women. He further stated that today, 40 percent of the students in his classes at the Graduate School of Business at Columbia are women.

A significant indication that the current shortage will not be easily corrected by simply recruiting more women into the profession, comes from the Nursing 88 poll results in the February 1988 issue. When respondents were asked if they would choose a nursing career a second time, less than one third answered positively, while a full one third stated they would not. Of even greater concern is the indication that only 38 percent of the respondents have actively

encouraged other people to enter the profession, while 60 percent have not. It would appear that the days of the familial female tradition for entering nursing and positive word-of-mouth support for the profession have ended.

#### Overview of Chapters

Chapter II consists of a comprehensive review of related research from the nursing, psychological, and sociological literature.

Chapter III discusses and describes in further detail the research design and methodology used in this research.

Chapter IV describes the statistical analyses performed and their results.

Chapter V summarizes the findings of this study as they relate to the research hypotheses and provides recommendations for any future studies in this area.

## CHAPTER II

## REVIEW OF THE LITERATURE

The literature review has been sequentially arranged beginning with the late 1960's to the present. It will review results of the recruitment of males into registered nursing, the reasons why men entered nursing, the effect nursing has had on them, and the nursing career choices made by men from the 1970's through to the 1980's.

Historic Synopsis

Since the beginning of the 1970's there has been increased interest concerning the active recruitment of men into registered nursing. As the recruitment program gained momentum, numerous opinion and research studies began to appear dealing with the real and perceived problems stemming from a significant influx of males into a female-dominant profession. The 1970's articles and research centered around two main topics: (a) the role-strain of the males already in the profession, and (b) women's attitudes toward the new influx of men into their established domain. Articles and research in the 1980's focussed on male registered nurses' attitudes toward their career choice and the societal reactions toward them.

Late 1960's, Into the 1970's

Near the end of the 1960's the number of men in registered nursing was equal to about 1 percent of the employed nurses in the

United States (Robinson, 1973a). This figure was later supported in the study done by Fottler in 1973, which was later published in the Journal of Health and Social Behavior in 1976. This study indicated that although the percentage of working nurses who were male was 1.1 percent, the actual proportion of total registered nurses who were male was 0.9 percent.

Due to a perceived nursing shortage there was an increased interest in active recruitment of men into the profession at this time. Fottler (1976) summarized the primary reasons behind this shift in gender emphasis were an attempt to provide an additional source for competent nurses and to reduce sex-specific occupational segregation. The reduction of gender-specific occupational segregation was seen as a means of obtaining increased professional status and recognition for nursing. Subsequently it was hypothesized that salaries, working conditions, and greater collegial relationships with physicians would follow (Silver & McAtee, 1972).

#### Results of Early 1970's Male Recruitment

The recruitment of men into registered nursing during the early 1970's was extremely successful. Based on percentage figures available for nursing school graduates from 1968 through estimated figures for 1974, there was a 2.8-fold increase in the number of men entering nursing. The figures ranged from 2.2 percent of graduating nurses in 1968 to a projected 6.2 percent of graduating nurses in 1974. These figures demonstrate an average 1.3 percent increase in

male nursing graduates every two years for the time frame (Fottler, 1976; RN, 1973).

Other statistics which were significant for men entering nursing during this period are directly attributable to the social factors affecting males in American society at the time. Based on figures collected by a registered nurse survey (RN, 1973) the vast majority of men entering nursing were between the ages of 21 to 30 years of age. Over the period from 1970 through 1974, this age group accounted for 74 percent of all men entering the profession. The percentage of men who were married was 55 percent. Most significantly, 35 percent or just over one third of the men were either veterans of military service or currently on active duty. Similar data were not directly available for women entering nursing during the same period. The indications are the average male graduating nurse: (a) was slightly older; (b) had a better than 50 percent chance of being married; and (c) had a better than 30 percent chance of having military service experience than the female counterpart. It must also be noted that most of these veterans and servicemen were recruited from medical corpsmen ranks subsequent to assignment in Vietnam and thus possessed considerable knowledge about nursing techniques (Robinson, 1973b). Nursing served these veterans and servicemen as an avenue to increased social economic status through the acquisition of a profession, or rising from the ranks to commissioned officer.

Results of Anticipated Trends and Changes, 1980's

Enrollment of men into registered nurse educational programs nation-wide peaked at 7.3 percent of total admissions in 1981. This is compared to a 1972 enrollment figure of 2.2 percent. Since 1981, the admission enrollment figures for males entering nursing has decreased to 6.3 percent, equivalent to 1978 figures. Since the 1985 percentages were the latest information available, it is too early to establish if the declining enrollment has continued, or stabilized at the 1978 level. The net gain in actively employed male R.N.'s since 1972 has been 1.6 percent. As of 1980 figures, the latest available, men comprise 3 percent of employed registered nurses. This proportion of males employed in the work force appears to have remained stable through to the present (ANA, 1985; Fottler, 1976; Nursing Census NLN, 1986).

Reasons Why Men Entered Nursing

The 1970's

Along with increased emphasis on recruitment of men into nursing, there was also increased research concerning why men would enter a female stereotyped profession. A study done by Greenberg and Levine (1971) asked the subjects why they entered the profession. The sample consisted of 15 employed male nurses, ranging from ages 25 to 60 years and holding positions of staff nurse, nurse anesthetist, assistant administrator, and director of nursing. All fifteen indicated that

money was a predominant factor. Nine stated they were interested in medicine, but could not afford physician education. The six older participants stated that during the Depression it was seen as a means to obtain skills needed to earn money. Some of the younger men indicated that military corpsman service directed them into nursing. Others without this background indicated that family members had identified the opportunities available. These statements were supported by the RN magazine survey reported by Robinson (1973a).

A similar study done by Shoenmaker and Radosevich (1973) identified job availability as the first reason for selecting nursing that was given by the men surveyed. The second most frequently identified reason was an interest in people, followed by salary and working conditions. The women in this study had placed humanitarian service first, followed by job availability, improvement in status, and interest in medicine. Additional reasons identified by the male nurses in Robinson's (1973a) study, included a need to be useful in a helping career and previous civilian experience as an ambulance driver or orderly.

A review of the studies conducted in the early 1970's supports the conclusion expressed by Schoenmaker and Radosevich (1973, p. 299), and reiterated by Hsia (1985, p. 3), that the men appeared more "pragmatic than women in that they were more apt to see nursing as a 'job' rather than an opportunity to work with people." This is seen as a direct result of the males' differences in age, employment

history, familial responsibility, and role socialization compared to their female contemporaries.

#### The 1980's

By the 1980's there was a shift in rationale stated by men for entering the profession. While still more job oriented than reasons given by women, there was an increased indication of humanitarian-need fulfillment for entry. An article by Wray (1980) identified reasons including an avenue to express compassion, sincerity, and understanding. The same article indicated a number of responses addressing a need to fulfill a desire to help others. However, even the more practical reasons for career entry had changed to reflect an increased freedom of choice available to both genders in the 1980's. A survey in RN (1983) identified working with patients, job stability, providing a needed service, geographic mobility, job benefits, and flexible working hours as the six primary reasons given by men for entering nursing. Alvarez (1984) indicated that men were entering the profession based on expanded career opportunities believed to be available. These included the nurse clinician, practitioner, and specialist roles along with the now traditional areas of intensive care, cardiac care, emergency services, and trauma care. Increased interest in educational positions and nursing administration were also noted.

Effect of Nursing Career Choice on the ManThe 1970's

The period of the late 1960's through the 1970's was one of great social upheaval in the United States. It would seem only natural then that men entering a predominantly female profession would encounter considerable personal and social stress, or "role-strain" (Greenberg & Levine, 1971). Both Greenberg and Levine and Robinson (1973) identified little or no experience for men in obstetrics and gynecology. This was found to exist not only in preparatory education but also in the working environment as well. The net result was an artificially imposed restriction in the scope of professional practice for men in nursing. This restriction was not based on the individual's professional abilities to care for the patients, but rather on the gender difference which existed between the patient and the nurse.

Another high stressor identified was pejorative responses from family, friends, and the initial contact with patients and social acquaintances (Bush, 1976; Greenberg & Levine, 1971; Robinson, 1973; Schoenmaker & Radosevich, 1976). Interestingly, each study indicated that most of the negative reactions experienced occurred during the initial disclosure of the individual's career status. Robinson (1973) identified this as the "virility test" which was used almost exclusively by male patients and acquaintances on the "male nurse." All the studies identified that, once the initial shock was past, the

male nurse was accepted as the care giver and without further social reservation. As Bush (1976, p. 96) put it, "Male nurses apparently believe that with education comes tolerance toward their new identity."

Two additional areas of stress appearing frequently were mistaken identity and resistance by female nurses toward males in the profession. The mistaken identity problem was clearly indicated by the responses of over half the participants in the Greenberg and Levine (1971) study. The men were often mistaken for orderlies or physicians. This situation was still highly evident five years later in a study by Rogness (1976). Male student nurses indicated they were frequently identified as medical students or physicians. The problem was compounded with individuals having to repeatedly correct the situation and often more than once with the same patient.

The issue of resistance from female nurses toward males entering registered nursing contained many contradictions. Greenberg and Levine (1971) indicated that four of the fifteen men interviewed had perceived some resistance from the women, and three of the four indicated the greatest pressure came from older female nurses. Significantly, all the male nurses who stated there was no resistance from women were in administrative positions. Robinson (1973a, p. 37) noted, "Traditionally, many R.N.'s have viewed the arrival of men in 'their' domain as a threat." These nurses believed that men would try to take over in both the work setting and the nursing organizations. Admittedly, a greater proportion of men entering the profession have

gone on to become nursing directors, hospital administrators, and presidents of state level nursing organizations.

Fottler's (1976) study indicated there was no clear evidence of professional competition between nurses specific to gender. In fact, this study indicated that women welcomed men into the profession. The only potent<sup>11</sup> area of conflict centered around lack of equity in salary and availability of promotion. The strongest negative attitudes according to Fottler (1976), were expressed by the younger nurses. These negative attitudes appeared to be based on limited exposure to male nurses and/or to perceived discrimination by employers in favor of the male. Inequitable distribution of career advancements and rewards is therefore considered to be the key ingredient which fosters negative female nurse attitudes towards men entering the profession.

#### The 1980's

During the 1980's there have been some significant changes in the areas of role-strain experienced by the men entering the career. Two of these are the ever-present ones of pejorative comments relating to the individual's sexuality and being mistaken for other members of the hospital staff. The negative sexuality issue of men working outside of their traditional role boundaries was uniquely expressed by Levine (1983, p. 51) as, "On the sexual desirability scale, the male nurse can be found somewhere between Quasimodo and the Elephant Man." There has also been an expansion in the mistaken identity area. Now the male nurse can be wrongfully identified as the physician, medical

student, orderly, lab technician, dietary aid, housekeeper, and painter (Kearns, 1986).

Other new areas of stress are related to subtle discrimination and have potentially greater negative effects for men in the profession. The first of these involves use of the male more as an orderly and as a buffer between physicians and female nurses during confrontations (McPhee, 1984; Vousden, 1980). McPhee (1984) also identified the practice of limiting the male R.N. to the care of male patients while female nurses cared for both genders. The last area of stress visited on the male R.N. is the mistaken belief that men in the profession have the power to make great changes for its betterment. Lawrence (1978) and McPhee (1984) have both stated that expecting 3 percent of a particular group to be responsible for sweeping changes which effect the other 97 percent is far from realistic. The fact remains that any improvement in job conditions, salaries, or status of the profession will have to be addressed by all members of the group, not a gender-specific minority. On the subject of men having a continuing, positive effect on salaries, Lawrence (1978, p. 30) states, "The woman who follows a man into a position might better expect to be offered a salary more in line with the woman who preceded him."

### Male Nurses from the 1970's to the Late 1980's

#### Effects of Role-Strain

In the 1970's career specialty choices for men post entry into registered nursing were predominantly in psychiatric nursing, anesthesiology, administration, and urology. The first three areas avoided the need to touch, reduced intimate patient contact, reduced potential role conflict, and offered increased salary potential (Greenberg & Levine, 1971). The mid-1970's saw a shift into the highly technical areas of patient care such as intensive care, cardiac care, operating room, and emergency services. There was also increased interest in pediatrics and the beginnings of involvement in community nursing (Robinson, 1973a). These same areas continued to attract the men in the late 1970's, however, there was a decreased interest in anesthesia and administration. This was probably due to increased competition from the technical specialty areas and an increased interest in all outpatient services except obstetrics and gynecology (Schoenmaker & Radosevich, 1976).

The 1980's saw continued interest in intensive care, cardiac care, operating room, and emergency services coupled with renewed interest in education and administration. As general patient care became increasingly specialized, there was a renewed interest in surgical specialty areas. Alvarez (1984) identified three primary reasons for this move by male R.N.'s. First, these areas would allow decreased deference to the physician. Secondly, there was greater

capacity for dominance over professional practice. Finally, with increased dominance over professional practice came increased autonomy.

Regardless of the time frame, all the career specialty choices by men have been on a select set of role-strain reduction criteria. All the areas allowed the individual to work without being in a status-defining white uniform. Physical patient contact became less intimate and therapeutic and more technical. The amount of personal interactive contact with the patient was reduced. Plus, many hospitals offered extra compensation for fully certified nurses in specialty care areas (Alvarez, 1984; Greenberg & Levine, 1971; Robinson, 1973a).

#### Effects of Male/Female Competition

Ever since the beginning of increased recruitment of males in the early 1970's, there have been rumors of competition and reversed discrimination by women against the men. To date, the evidence collected by substantial research (Fottler, 1976; Greenberg & Levine, 1971; Schoenmaker & Radosevich, 1976) does not substantiate any major negative feelings against men in nursing by the women. The only area of potential conflict was brought out by Fottler (1976) indicating that inequity in pay and promotion availability and potential posed the biggest threat.

Summary

In just less than 20 years nursing has entered another cycle of shortage relative to the established need. There is again a potential for increased emphasis on male recruitment into nursing due to a shift of women away from the profession. The question still remains, however, as to how a new influx of men into nursing will be received by the women? Also, if men are to be considered as a potential source for nurse recruiting, will the men already in the profession actively recommend the profession to other men?

## CHAPTER III

## RESEARCH DESIGN AND METHODOLOGY

This chapter will discuss in depth the research design and methodology used in this study. It will be useful for any replication or extension of this research.

Statement of the Purpose

This study was designed to help identify the potential for gender-based competition by assessing the attitudes of both male and female registered nurses towards men in nursing. Factors to be considered are: (a) the affect of proximity to male registered nurses, (b) gender-based equity of exchange, and (c) the role of the male in registered nursing.

Design

This is a replicative and comparative study based on work done by Myron D. Fottler in 1973. Fottler examined the attitudes of female registered nurses towards male registered nurses using a 10 item, five-point Likert scaled, attitudinal assessment schedule. Fottler's sample consisted solely of randomly-selected female nurses from the Western New York geographic area. The current study utilized randomly-selected male and female registered nurse samples from the same geographic area.

The rationale of this study was to assess the effect of 15 years of the feminist movement on the attitudes of female nurses toward men in the profession, by using the same 10 attitudinal statements from the 1973 study. Comparison of responses were made between Fottler's 1973 female sample and the women from the current study. Comparison of responses were also made between the male and female samples from the current study to identify any gender-specific differences relative to attitudes towards men in nursing.

Thirty-seven additional items have been added to the Nurse Attitudes Assessment Schedule (NAAS) to assess the additional factors of equity of exchange, proximity to male nurses, and the role of the male in nursing. Comparisons were also made between the male and female samples from the current study to identify any gender-specific differences relative to these additional factors.

#### Setting

Individuals who participated in the study were randomly selected male and female registered nurses licensed to practice in the Western New York geographic area. Individual respondent areas of employment ranged from small rural hospitals, of 100 beds or less, to urban medical centers having more than 500 beds. A significant portion of the respondents were employed in private clinics and physician's offices. Therefore, the only commonality of setting is that all respondents were confined to the Western New York geographic area. This was in direct concert with Fottler's 1973 study.

Population and Sample

The target population was identified as all male and female registered nurses currently licensed to practice in Western New York State. The accessible female population was identified as all female registered nurses currently licensed to practice in the Western New York geographic area and who appeared on the mailing list of the State University of New York at Buffalo (SUNY/AB), Continuing Nurse Education Program. The accessible male population was identified as all male registered nurses currently licensed to practice in the Western New York geographic area and who appeared on the mailing list of the SUNY/AB, Continuing Nurse Education Program.

The mailing list of the SUNY/AB, Continuing Nurse Education Program consisted of a total of 25,100 names. This list was initially reviewed and numbered to establish the gender-specific accessible populations. There were 753 males and 24,347 females available for the gender-specific accessible populations. The ratio of males to females in the overall accessible population was 3.0 percent, which was in direct concordance with national figures (ANA, 1985; Fottler, 1976; Nursing Census NLN, 1986).

Random samples were drawn from both the male and female accessible populations utilizing a table of random digits (Polit & Hungler, 1987, p. 124). The gender-specific samples consisted of 100 males and 300 females. While the male sample size was disproportionately greater than the national figure of 3 percent, of the active nursing work force, it was deemed necessary to obtain

sufficient data for comparison with the female sample selected for this study.

#### Research Tools

A self-administered survey tool was developed which consisted of an introductory letter, a questionnaire with 25 demographic items, and a Nurse Attitudes Assessment Schedule with 47 items (see Appendix A). The introductory letter identified the researcher, the general contents of the survey tool, requested response time, a statement of anonymity, and potential benefit of the current research.

#### Demographic Questionnaire

The demographic section consisting of 25 multiple selection and fill-in items was used to obtain background information on each respondent. Some of the information obtained included the respondent's age, marital status, educational level, area of socialization (urban, suburban, rural), employing organization (hospital, public health, clinic, office), area of current practice (medical, surgical, emergency service, outpatient, intensive care, operating room), current position held (staff nurse, charge nurse, head nurse, supervisor, director of nursing, nurse clinician), and amount of active nursing experience. This information was used to establish aggregate groups for comparison of attitudinal responses and to perform multiple regression analysis.

### Nurse Attitudes Assessment Schedule

A 47 item, five-point Likert scaled Nurse Attitudes Assessment Schedule (NAAS) was developed to determine attitudes toward men in nursing. The first 10 items in the NAAS were those used by Fottler in his 1973 study. An additional 37 items were added to the current study to assess the factors of equity of exchange, the effect of proximity to male nurses, and the role of the male in nursing. All statements were intended to elicit an attitudinal response from the respondents from which one overall and five subset mean total scores were obtained.

The NAAS contains both positively and negatively worded items in order to reduce respondent bias. The individual items were randomly positioned in the NAAS to prevent sequential bias by the respondent. In all cases, agreement with positively and disagreement with negatively worded statements indicated support for the hypothesis being tested. Conversely, disagreement with positively and agreement with negatively worded statements indicated lack of support for the hypothesis being tested (see Appendix B for specific position statements regarding categorization of responses).

### Validity of the Nurse Attitudes Assessment Schedule

Polit and Hungler (1987) and Waltz (1984) both addressed the necessity of establishing Content Validity for instruments designed to assess cognition or attitudinal responses. The NAAS was evaluated for

Content Validity by submitting the entire set of attitudinal statements (Appendix A) to content specialists for their review. They also received the attitudinal statements formatted into hypothesis specific subsets (Appendix B). The content specialists were asked for their opinions as to the relevance of each attitudinal statement to the overall study and to the specifically designated hypotheses. Their feedback concerning changes to specific wording of some items was incorporated into the final version of the NAAS.

Reliability of the Nurse Attitudes Assessment Schedule

Polit and Hungler (1987) identified three issues concerning reliability of any instrument used to measure psychosocial/attitudinal response. First, the reliability of the instrument is usually improved by increasing the number of items designed to test the same concept or idea. The NAAS ranges from a low of 7 items for the second hypothesis to 18 for the fifth hypothesis. Second, the reliability of an instrument is related to the variability or heterogeneity of the sample chosen for the study. For this reason, the gender-specific samples used in this study were randomly selected. Third, psychosocial/attitudinal scales should be evaluated for Internal Consistency. Internal Consistency for the NAAS was accomplished through the use of Cronbach's alpha coefficient.

Prior to initiation of data collection for this research, a pilot study was completed utilizing the NAAS and the demographic portion of the questionnaire. The sample consisted of 3 male and 17 female

nurses using a combined convenience sample from the North East Ohio and Western New York geographic areas. The Cronbach alpha technique was employed to assess the internal consistency of the total 47 item NAAS. The pilot study reliability coefficient was established at .65 for the combined male and female sample of 20 respondents.

Upon completion of the research data collection a reliability coefficient was run utilizing the Cronbach alpha technique. The reliability coefficient for the NAAS obtained for the research sample was .76.

#### Data Collection Methods

Approval was obtained from the Research and Human Subjects Review Committee of the sponsoring university (Appendix C). The research was conducted in January and February 1989. The questionnaire was pretested using the pilot sample previously described. This was done to detect any gross inadequacies or unforeseen problems.

A packet containing the introductory letter, the questionnaire, a standardized set of instructions, and a self-addressed, stamped return envelope was mailed to each subject. All respondent packets were prepared, collated by zip code, and mailed on the same day. Respondents were requested to return the completed questionnaire within 30 days of receipt. Respondent anonymity was strictly maintained so no follow-up mailing was sent. A grace period of 7 days was allowed for initial delivery and receipt of the respondent packets with the close-out date for data retrieval established accordingly.

Data Analysis

Both the demographic portion and the NAAS were designed for direct coding into the computer. All data were checked for accuracy before and following entry. Missing data were coded as 9 or 99 depending on the number of columns required to hold a specific datum.

Scoring

Recoding for inverse scoring was required for 22 of the 37 additional items used in the NAAS to maintain uniform direction of the five-point scale range. To maintain continuity with the 1973 Fottler study none of the first 10 items in the NAAS were inversely scored.

Respondents were asked to indicate their agreement to each of the 47 items in the NAAS based on a five-point Likert scale. Possible responses were 1—"strongly disagree," 2—"disagree," 3—"uncertain," 4—"agree," and 5—"strongly agree." Following recoding for inverse scoring, for 22 of the 37 additional statements, one overall total score was obtained for each respondent. Additional total scores were also obtained for each respondent for each of the hypothesis-specific and the Fottler 1973 subsets. The overall and subset total scores were then categorized by gender and descriptive statistics were obtained on all variables measures. A frequency distribution, mean, mode, standard deviation, and range were obtained on all individual items, overall total score, and subset total scores for the NAAS. Descriptive statistics were also obtained by gender.

For ease of identification the following titles will be used when referring to data and analysis results pertaining to the overall and hypothesis-specific subsets of the NAAS. Overall score refers to the use of data obtained from all 47 items which comprise the NAAS (Appendix A). The terms Proximity, Equity, Role 4, and Role 5 refer to the use of data obtained from items which comprise the hypothesis-specific subsets in support of the second, third, forth, and fifth hypotheses (Appendix B). Fotall refers to the use of data obtained from items which comprise the first 10 items in the NAAS in support of comparison with the 1973 Fottler study (Appendix B).

Ordinal level score range scales were established for the Fotall and Role 4 and 5 subsets based on the absolute minimum and maximum obtainable scores. For example, Fotall includes only the first 10 items contained in the NAAS. The absolute minimum score would be 10 ( $10 \times 1$ ) and the absolute maximum score would be 50 ( $10 \times 5$ ). To maintain continuity with the Fottler (1976) study, the same method for calculating the score ranges was used. These absolute score range scales were used to compare the 1989 gender-specific total score frequency of responses for these subsets.

For ease of comparison with the Fottler study, the ordinal level score range scale reported by Fottler (1976) was used. It was noted that Fottler had established his ordinal level score range scale based on the observed minimum and maximum scores obtained from his sample. While this was not consistent with this study's method of establishing these categories, it was necessary to utilize the 1973 score ranges

since the raw data were not available from his study and conversion to the absolute value score ranges could not be done.

#### Statistical Analysis

The statistical analysis techniques required for testing each hypothesis were as follows:

Hypothesis 1. Female registered nurses hold generally positive attitudes toward male registered nurses. Comparison between the 1973 Fottler and the current female samples was done via t-test. T-test comparison was also made between the male and female samples from the current study using the gender-specific Fottall subset mean total scores. The current male and female samples were also compared by t-test utilizing the gender-specific Overall mean total scores.

Hypothesis 2. Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses hold generally more positive attitudes toward men in nursing than do less experienced nurses. Separate Pearson Product Moment Correlations were done using the total sample and gender-specific Proximity mean total scores to correlate with the following variables: the length of time as a registered nurse, the length of time employed as a registered nurse, and the number of male nurses worked with during the length of the individual's career.

Hypothesis 3. Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses perceive more exchange equity between male and female

registered nurses and less gender-specific competition than do less experienced registered nurses. Separate Pearson Product Moment correlations were done using the total sample and gender-specific Equity mean total scores to correlate with the same three demographic variables listed for hypothesis two.

Hypothesis 4. Male registered nurses perceive that female registered nurses generally hold positive attitudes toward men in nursing. A t-test was performed to compare the gender-specific Role 4 mean total scores for the current study male and female samples.

Hypothesis 5. Male registered nurses perceive the profession as a rewarding career with fewer limitations on the scope of practice and potential for advancement based on gender-specificity than do female registered nurses. A t-test was performed to compare the gender differences of the Role 5 mean total scores.

Separate multiple regression analyses were performed to identify any specific, or group of, demographic variables which might significantly affect responses to any of the hypothesis-specific attitudinal statement subsets. The Overall, Fotall, Proximity, Equity, Role 4, and Role 5 total sample, mean total scores were used as the dependent variables. Independent variables included sex, age, marital status (married, single, widowed, divorced), educational level (two-year associate, three-year diploma, baccalaureate, masters, doctorate), area of socialization while growing up (rural, suburban, urban), employing organization (small hospital of 100 beds or less, medium hospital of 100 to 250 beds, large hospital of 250-500 beds,

medical center of 500 beds or greater, private clinic or physician's office, public health), position held (staff position, management, lateral clinical or nurse education), number of male nurses worked with during professional career, length of time employed as a registered nurse, length of time as a registered nurse (employed and unemployed), and current specialty area of practice (medical/surgical, intensive care/trauma, obstetrics/gynecology, nursery/pediatrics, administration/education, psychiatric).

## CHAPTER IV

## ANALYSIS OF RESULTS AND DISCUSSION

Introduction

This chapter presents the results of the data analysis. The first section provides a report on the findings, followed by an interpretation of these findings as they relate to the research hypotheses.

Response Rate

A total of 400 questionnaires were mailed out, 100 to the male nurses, and 300 to the female nurses. The total number of questionnaires returned was 145 for a total response rate of 36 percent.

One hundred thirty-six of the returned questionnaires were used in the data analysis of this research. (Nine of the returned questionnaires were not used. Four were not sufficiently complete to yield enough data to support the research and 5 were returned after the data collection completion date.) This resulted in a sample of 38 males and 98 females. The overall usable response rate was 34 percent. The gender specific usable response rates were 38 percent for the men and 33 percent for the women.

Description of Sample

Descriptive information is provided on each of the eleven demographic variables used in the multiple regression analyses. Total sample information is presented first, followed by gender-specific data.

The gender-specificity of the total sample was 38 (28 percent) men and 98 (72 percent) women. The average age of all the respondents was 43.5 years, with an age range of 23 to 81. The average age of the men was 40 years with a range of 23 to 75, while the mean age of the women was 45, with a range of 27 to 81. Of the total sample, 76.5 percent were married with 23.5 percent either single, divorced, widowed, or separated. The men demonstrated an 84 percent marriage rate compared to 73.5 percent married for the women. The majority of the total sample had an educational level averaging between a two-year associate degree and a three-year diploma program. A little more than 24 percent of the sample held two-year associate degrees, 34 percent were graduates of a three-year diploma program, 24 percent held four-year baccalaureate degrees, and almost 17 percent held graduate degrees in nursing or other fields. There was a significant difference between the genders, with almost 53 percent of the men holding baccalaureate or graduate degrees compared to 37 percent of the women. The average educational level for the men was a baccalaureate degree, with the women averaging between a three-year diploma and baccalaureate.

Almost 68 percent of the total sample grew up in an urban/suburban setting. Based on gender, however, the majority of the women (73 percent) grew up in an urban/suburban setting compared to 55 percent of the men. Therefore, for this research, 45 percent of the men came from a rural background as compared to only 27 percent of the women.

The area of employing organization showed 64 percent of the total sample working in a hospital setting as compared to a private clinic or physician's office and public health. This dispersion remained relatively constant, with 68 percent of the men and 69 percent of the women being hospital-based for employment. The respondents were also asked to identify the position currently held. These position identifications were aggregated into staff positions (staff nurse, charge nurse, assistant head nurse), middle management (head nurse, supervisor, nursing director), and administration/lateral staff (nursing administrator, nurse clinician, other). The total sample identified 48 percent in staff positions, 22 percent in middle management, and 30 percent in administration/lateral staff. The gender-specific breakdown was roughly equivalent at the staff position with 47 percent of the males and 48 percent of the females. However, 34 percent of the men identified themselves in middle management compared to only 16 percent of the women. The administration/lateral staff category showed just the reverse, with 35 percent of the women (administration 2 percent and other 33 percent) and 18 percent for the men.

The rate of contact with males in nursing was rather high at 96 percent for the total sample, with 100 percent of the men and 94 percent of the women reporting having worked with male nurses. Seventy-three percent of the total sample reported having worked with between 1 to 10 male nurses throughout their career. The men demonstrated a higher male nurse contact than the women with 53 percent of the men having worked with 6 to 10 male nurses during their careers as compared with 53 percent of the women reporting having worked with 1 to 5 male nurses.

The amount of time a respondent was classified as a registered nurse was identified in two ways. First was the amount of time an individual had been a nurse, with the second being how long the individual had been employed as a nurse. The total sample reported an average of 18.5 years as a nurse, with a range of 2 to 53 years, and the largest single percentage (10.3%) having been a nurse for 8 years. Time employed as a registered nurse showed an average of 16 years, with a range of 1 to 50 years, and the largest single percentage (12.5%) having been employed for 8 years. When divided along gender-specific lines, the women demonstrated a longer average length of time as a nurse (women 21 years, men 12 years) and being employed as a nurse (women of 18 years, men 11 years) than the men. The women also demonstrated slightly wider ranges for length of time as a nurse (women 2 to 53 years, men 2 to 49 years) and length of time employed as a nurse (women 2 to 50 years, men 1 to 44 years). Both sexes demonstrated the same position for the single largest percentage for

time as a nurse and time employed as a nurse at 8 years. However, the men demonstrated 16 percent for both categories while the women showed 8 percent and 12 percent respectively for these categories.

The last demographic variable to be considered was area of current practice. There are a total of 17 specific areas listed on the demographic portion of the questionnaire, with an additional selection of "other." To aid in the multiple regression these individual area selections were placed into aggregate groups of medical/surgical (medical, surgical, orthopedics, neurology, oncology), intensive/trauma care (intensive care, cardiac care, emergency room, operating room), gynecology (obstetrics, gynecology), pediatrics (pediatrics, nursery, nursery intensive care), lateral staff (administration, education), psychiatric, and other. The groups with the greatest percentages for the total sample were intensive/trauma care (20 percent), medical/surgical (13 percent), lateral staff (11 percent), and other (32 percent). The men were concentrated in psychiatric (29 percent), intensive/trauma care (21 percent), medical/surgical (11 percent), and other (32 percent). The women reported intensive/trauma care (19 percent), medical/surgical (14 percent), lateral staff (14 percent), and other (34 percent). Women also reported being involved in all other areas of practice in percentages of less than 10 percent, while the men indicated no involvement in the areas of obstetrics, gynecology, pediatrics, or nursery. The aggregate group of "other" included such specified positions as phlebotomist, private duty, dialysis, and private office

or clinic positions. Some of the men indicated they worked in prison infirmaries.

Results From the Nurse Attitudes  
Assessment Schedule

Mean responses to the individual items contained in the (NAAS) were obtained for both the total sample ( $N = 136$ ) and the gender-specific samples (male,  $N = 38$ , female,  $N = 98$ ). These item specific mean responses were then listed separately for each hypothesis-specific subset of Proximity, Equity, Role 4, Role 5 and for the Fottall subset. The total sample listings are presented in Appendix D and the gender-specific listings are presented in Appendix E.

A comparison was made of the individual item mean scores for the Fottall subset between the current study female sample and Fottler's female sample from 1973 (Appendix E). It was noted that the 1989 female sample scored lower than the 1973 female sample on 9 of the 10 attitudinal statements. A similar comparison was made between the male and female samples from the current study on the Fottall subset (Appendix E). In this case the women scored lower than the men on all ten items.

Following recoding for inverse scoring on 22 of the 37 additional items contained in the NAAS, total scores were calculated for each respondent for the Overall, Proximity, Equity, Role 4, Role 5, and the Fottall subsets. (Table 1 lists the total sample and the gender-specific mean total scores for each of these subsets.)

Table 1

Total Sample and Gender-Specific, Mean Total Scores Achieved On The  
Dependent Variable Subsets

	Total Sample N = 136		Males N = 38		Females N = 98	
	Scores	sd	Scores	sd	Scores	sd
Overall	151.64	12.93	151.37	9.43	151.75	14.17
Proximity	23.28	3.30	24.71	3.08	22.71	3.23
Equity	44.80	4.29	47.58	3.45	43.67	4.09
Role 4	25.97	4.85	23.29	3.40	27.03	4.94
Role 5	58.47	6.80	55.79	6.04	58.36	7.41
Fotall	29.09	4.32	32.11	4.13	27.90	3.79

T-tests were used to compare the gender-specific means for Overall and each of the subsets. Results showed significant gender specific differences in mean total scores for the Proximity, Equity, Role 4 and Fotall subsets with  $p < 0.01$  in each case.

Testing of Hypotheses

Hypothesis 1. Female registered nurses hold generally positive attitudes toward male registered nurses.

Table 2 shows the frequencies and percentages of women from the 1973 and 1989 samples arranged according to the score ranges delineated by Fottler (1976).

Table 2

Scores Achieved On The Fottler Subset By 1973 and 1989 FemaleSubjects According To Fottler Score Ranges

1973		1989			
Female Subjects		Female Subjects			
N = 126		N = 96			
Ranges	Number	Percentage	Number		
15-24	9	7.2	15	15.6	
25-29	21	16.6	45	46.9	
30-34	62	49.2	34	35.4	
35-39	30	23.8	2	2.1	
40-49	4	3.2	0	0.0	
<b>Totals</b>	<b>126</b>	<b>100.0</b>	<b>96</b>	<b>100.0</b>	
		2 Missing			
Mean	=	32.73	Mean	=	27.90
Stddev.	=	4.32	Stddev.	=	3.79
Range	=	15-47	Range	=	18-36

According to Fottler (1976), scores falling into the following ranges might be labeled: (15-24)-"very negative," (25-29)-"somewhat negative," (30-34)-"neutral," (35-39)-"somewhat positive," and (40-49)-"very positive." Overall, 23 percent of the women in the 1973 study indicated a negative response and 27 percent were positive compared to the 1989 women, of whom 62.5 percent indicated a negative response and 2.1 percent were positive. Table 3 shows the frequency and percentage comparison between the male and female subjects from

the current study according to Fottler's score ranges for the same 10 attitudinal statements.

Table 3

Scores Achieved On the Fotall Subset by 1989 Male and Female Subjects According to Fottler Score Ranges

Ranges	Male Subjects N = 38		Female Subjects N = 96	
	Number	Percentage	Number	Percentage
15-24	1	2.6	15	15.6
25-29	12	31.6	45	46.9
30-34	14	36.9	34	35.4
35-39	9	23.6	2	2.1
40-49	2	5.3	0	0.0
Totals	38	100.0	96	100.0
			2 Missing	
Mean	=	32.11	Mean	= 27.90
Stddev.	=	4.13	Stddev.	= 3.79
Range	=	22-41	Range	= 18-36

The women show a 62.5 percent negative response with 2.1 percent positive. The men demonstrated a 34.2 percent negative and a 28.9 percent positive response. Based on this information, the men are seen as having a more positive attitude toward men in the profession than do the women.

A comparison between the men and women from the current study was also made by arranging the gender-specific Fotall subset mean

total scores according to the absolute value score ranges. Table 4 shows the frequency and percentage comparisons between the gender-specific samples from the current study.

Table 4

Scores Achieved on the Fotall Subset by 1989 Male and Female Subjects  
According to Absolute Value Score Ranges

Ranges	Male Subjects N = 38		Female Subjects N = 96	
	Number	Percentage	Number	Percentage
10-20	0	0.0	4	4.2
21-27	2	5.3	38	39.6
28-32	25	65.8	49	51.0
33-39	9	23.6	5	5.2
40-50	2	5.3	0	0.0
 Totals	 38	 100.0	 96	 100.0
 2 Missing				
Mean	=	32.11	Mean	= 27.90
Stddev.	=	4.13	Stddev.	= 3.79
Range	=	22-41	Range	= 18-36

The women still demonstrated a more negative attitude toward men in the profession with 43.8 percent falling below the neutral range (28-32), and only 5.2 percent having a positive response. The men maintained a 28.9 percent positive figure with the negative dropping to 5.3 percent.

A t-test comparison of the mean scores achieved by Fottler's 1973 female subjects with those in the current study was conducted. The results indicate that the women in the current study have a significantly lower attitude score toward registered male nurses than do the women in the 1973 study with a  $t = -8.78$  and  $p < 0.01$  (see Table 2). A pooled t-test was also performed between the men and women from the current study based on the gender-specific mean total scores for the Fotall subset. The results indicate that the men have significantly higher scores than the women with  $t = 5.64$  and  $p < 0.01$  (see Table 3). No significant difference was found between the men and women from the current study utilizing the gender-specific Overall mean total scores. (The t-statistic was  $-0.18$  with a  $p > 0.05$ .)

The t-test results obtained by comparing the 1973 and 1989 female samples indicate a significant change has occurred over the past 15 years in female nurses' attitudes toward men in nursing. The results of the Fotall subset also indicated a significant difference in attitude between the men and women from the current study toward men in nursing. In both instances the women in the current study were more negative in their attitude toward men in nursing. However, the t-test comparison using the gender-specific Overall mean total scores showed no significant difference between the sexes due to a .38 difference between these scores.

Separate multiple regression analyses were performed using the total sample Overall and Fotall subset mean total scores as the dependent variables. The independent variables were sex, age, marital

status, educational level, area of socialization while growing up, employing organization, position held, number of male nurses worked with during professional career, length of time employed as a registered nurse, length of time as a registered nurse (employed and unemployed), and current specialty area of practice. Table 5 summarizes the results of the multiple regression analysis utilizing the total sample Overall mean total score as the dependent variable.

Table 5

Multiple Regression Results, Total Sample Overall Mean Total Score  
With Demographic Independent Variables

Independent Variables	Sum of Squares	R Square Change	F Statistic	Signif. F
Sex	310.5881	.0163	1.8363	.1799
Age	176.0858	.0092	1.0411	.3105
Marital Status	613.1720	.0322	.9063	.4642
Education	169.0648	.0089	.1999	.9617
Geographical Area	410.7344	.0216	1.2142	.3021
Employing Organization	1004.3682	.0527	1.1876	.3222
Position Held	221.6083	.0116	.6551	.5220
Contact with Male Nurses	272.5044	.0143	1.6111	.2078
Time Employed as RN	113.9578	.0060	.6738	.4141
Time as RN	66.1793	.0035	.3913	.5333
Specialty Area	329.9720	.0173	.3902	.8543
Constant = 150.05		Multiple R = .504		
F = 1.02		Multiple R-squared = .254		
p = > 0.05				

None of the independent variables showed a statistically significant relationship to the total sample Overall mean total score at the 0.05 level.

Table 6 shows the results of the multiple regression analysis utilizing the total sample Fotall mean total score as the dependent variable.

Table 6

Multiple Regression Results, Total Sample Fotall Mean Total Score  
With Demographic Independent Variables

Independent Variables	Sum of Squares	R Square Change	F Statistic	Signif. F
Sex	144.7502	.0682	9.6717	.0025
Age	13.8019	.0065	.9222	.3396
Marital Status	35.9394	.0169	.6003	.6634
Education	40.0806	.0189	.5356	.7488
Geographical Area	23.0362	.0109	.7696	.4664
Employing Organization	28.1460	.0133	.3761	.8638
Position Held	34.8698	.0164	1.1649	.3168
Contact with Male Nurses	11.7368	.0055	.7842	.3783
Time Employed as RN	81.3301	.0383	5.4342	.0221
Time as RN	34.7668	.0164	2.3230	.1311
Specialty Area	60.0516	.0283	.8025	.5510

Constant = 31.67      Multiple R = .628  
 F = 1.99      Multiple R-squared = .394  
 P = < 0.01

In this instance two of the independent variables, sex and the amount of time employed as a nurse, showed statistically significant relationships with the Fotall mean total score. Approximately 40 percent of the variance of the Fotall mean total score can be explained by these eleven independent variables.

Hypothesis 2. Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses hold generally more positive attitudes toward men in nursing than do less experienced nurses.

This hypothesis was initially tested by performing separate Pearson Product Moment Correlations using both the total sample and gender-specific Proximity mean total scores correlated with the variables of: the length of time as a registered nurse, the length of time employed as a registered nurse, and the number of male nurses worked with during the length of the individual's career. Table 7 shows that there are no relationships between the total sample Proximity mean total score and time as a registered nurse, nor time employed as a registered nurse.

Table 7

Pearson Product Moment Correlations Between 1989 Subjects' Proximity Mean Total Score and Time as an RN, Time Employed as an RN and Number of Male RN's Worked with (N = 136)

Variables	r	r squared	p
Time as RN	-0.063	.004	.24
Time Employed as RN	-0.129	.017	.07
# Male RN's Worked With	.217	.047	.008

However, there is a mild relationship between the total sample Proximity mean total score and the number of male registered nurses worked with ( $r = .22$ ).

A second set of Pearson Product Moment Correlations was based on the gender-specific Proximity mean total scores. Table 8 summarizes the results of these tests.

Table 8

Gender-Specific Pearson Product Moment Correlations Between 1989 Subjects' Proximity Mean Total Scores and Time as an RN, Time Employed as an RN and Number of Male RN's Worked With

Variables	r	r squared	p
<hr/>			
MALES (N = 38)			
Time as RN	-.106	.011	.27
Time Employed as RN	-.181	.033	.14
# Male RN's Worked With	.171	.029	.17
<hr/>			
FEMALES (N = 98)			
Time as RN	.069	.005	.25
Time Employed as RN	-.008	.0006	.47
# Male RN's Worked With	.147	.022	.09
<hr/>			

None of the variables demonstrated any statistically significant relationship with nurses' attitudes toward men in nursing.

A multiple regression analysis was performed by using the total sample Proximity mean total score as the dependent variable and the

same eleven independent variables listed for the first hypothesis as independent variables. Table 9 shows the results of this test.

Table 9

Multiple Regression Results, Total Sample Proximity Mean Total Score  
With Demographic Independent Variables

Independent Variables	Sum of Squares	R Square Change	F Statistic	Signif. F
Sex	19.9524	.0154	1.8219	.1807
Age	22.7725	.0176	2.0784	.1530
Marital Status	22.4537	.0174	.5123	.7268
Education	51.6302	.0399	.9425	.4579
Geographical Area	24.2340	.0187	1.1059	.3356
Employing Organization	39.5021	.0306	.7211	.6094
Position Held	.1680	.0001	.0077	.9924
Contact with Male Nurses	5.5438	.0043	.5060	.4788
Time Employed as RN	16.3154	.0126	1.4891	.2257
Time as RN	1.3379	.0010	.1221	.7276
Specialty Area	60.8809	.0471	1.1113	.3605

Constant = 31.90      Multiple R = .521  
 F = 1.14      Multiple R-squared = .271  
 P = > 0.05

It indicates that none of independent variables are significantly related to the proximity score.

Hypothesis 3. Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses, perceive more exchange equity between male and female registered nurses and less gender-specific competition than do less experienced registered nurses.

This hypothesis was also initially tested by performing separate Pearson Product Moment Correlations using the total sample Equity mean total scores correlated with the variables of: the length of time as a registered nurse, the length of time employed as a registered nurse, and the number of male nurses worked with during the length of the individual's career. Table 10 shows the results of these tests.

Table 10

Pearson Product Moment Correlations Between 1989 Subjects' Exchange Equity Mean Total Score and Time as an RN, Time Employed as an RN and Number of Male RN's Worked With (N = 136)

Variables	r	r squared	p
Time as RN	-.226	.051	.005
Time Employed as RN	-.259	.067	.002
# Male RN's Worked With	.210	.044	.011

Both the length of time as a registered nurse and the length of time employed as a registered nurse had significantly negative relationships with exchange equity at  $p < 0.01$ . However, the low correlation coefficients (r) and small coefficients of determination (r-squared), 5.1 percent and 6.7 percent respectively, indicate that these two variables have a weak relationship with attitudes toward men in nursing. The same may be said for the number of male nurses worked with during a career which showed a  $p < 0.05$ .

A second set of Pearson Product Moment Correlations was done using the gender-specific Equity mean total scores with the other variables remaining the same. Table 11 summarizes these results.

Table 11

Gender-Specific Pearson Product Moment Correlations Between 1989 Subjects' Exchange Equity Mean Total Scores and Time as an RN, Time Employed as an RN and Number of Male RN's Worked With

Variables	r	r squared	p
<hr/>			
MALES (N = 38)			
Time as RN	-.135	.018	.21
Time Employed as RN	-.245	.038	.07
# Male RN's Worked With	.283	.060	.053
<hr/>			
FEMALES (N = 98)			
Time as RN	-.102	.010	.17
Time Employed as RN	-.130	.017	.11
# Male RN's Worked With	.030	.0009	.39
<hr/>			

No significant results were found in this part (see Table 11).

A Multiple regression analysis was also conducted by using the total sample Equity mean total score as the dependent variable and the same eleven independent variables listed for the first hypothesis.

Table 12 shows the results of the multiple regression.

Table 12

Multiple Regression Results, Total Sample Equity Mean Total Score  
With Demographic Independent Variables

Independent Variables	Sum of Squares	R Square Change	F Statistic	Signif. F
Sex	105.4955	.0494	7.8682	.0062
Age	2.8625	.0013	.2135	.6452
Marital Status	149.6341	.0700	2.7900	.0313
Education	59.2111	.0277	.8832	.4960
Geographical Area	15.2397	.0071	.5683	.5686
Employing Organization	28.8391	.0135	.4302	.8264
Position Held	85.6326	.0401	3.1934	.0459
Contact with Male Nurses	17.0931	.0080	1.2749	.2620
Time Employed as RN	60.7721	.0284	4.5326	.0361
Time as RN	13.9878	.0066	1.0433	.3099
Specialty Area	98.5995	.0462	1.4708	.2078
<hr/>				
Constant = 35.51	Multiple R = .678			
F = 2.62	Multiple R-squared = .460			
p = > 0.01				

Only one of the independent variables (sex) showed a significant relationship with exchange equity with a  $p < 0.01$ . Three other independent variables (marital status, position held, time employed as a registered nurse) showed significant relationships with exchange equity at  $p < 0.04$ . Approximately 46 percent of the variance in attitudes toward men in nursing can be explained by these eleven independent variables.

Hypothesis 4. Male registered nurses perceive that female registered nurses generally hold positive attitudes toward men in nursing.

Table 13 shows the frequencies and percentages of the gender-specific samples from this study against the absolute value, ordinal score ranges for Role 4.

Table 13

Scores Achieved on the Role 4 Subset by 1989 Male and Female Subjects  
According to Absolute Value Score Ranges

Ranges	Male Subjects N = 38		Female Subjects N = 98	
	Number	Percentage	Number	Percentage
8-15	1	2.6	1	1.0
16-21	13	34.2	10	10.5
22-26	17	44.8	36	37.5
27-32	7	18.4	39	40.6
33-40	0	0.0	10	10.4
 Totals	 38	 100.0	 96	 100.0
 2 Missing				
Mean	=	23.29	Mean	= 27.03
Stddev.	=	3.40	Stddev.	= 4.94
Range	=	15-31	Range	= 15-39

Scores falling into the following ranges are labeled by the researcher as: (8-14)-"very negative," (16-21)-"somewhat negative," (22-26)-"neutral," (27-32)-"somewhat positive," and (33-40)-"very positive." All the NAAS items for this subset were negatively worded in an attempt to draw out definitive responses from the men and women in this study. It was noted, as indicated on Table 13, that the women

demonstrated a 51 percent positive response toward men for this subset, while only 18 percent of the men responded positively.

A t-test was used in comparing the gender-specific Role 4 mean total scores. The t-statistic was -4.28 and was significant with a  $p < 0.01$  for a two-tailed test of 132 degrees of freedom. The t-test results obtained indicate a significant difference between what the women are identifying as their attitude toward men in the profession, and the way these attitudes are being perceived by the men in the profession.

A multiple regression was also used to examine the relationship between the total sample Role 4 mean total score as the dependent variable and the same eleven independent variables listed for the first hypothesis. Table 14 summarizes the results of this analysis. The only independent variable demonstrating a statistically significant correlation was sex with a  $p < 0.01$ . In general, these eleven independent variables did not provide a significant relationship with the total sample Role 4 mean total score.

Hypothesis 5. Male registered nurses perceive the profession as a rewarding career with fewer limitations on the scope of practice and potential for advancement based on gender-specificity than do female registered nurses.

Table 14

Multiple Regression Results, Total Sample Role 4 Mean Total Score  
With Demographic Independent Variables

Independent Variables	Sum of Squares	R Square Change	F Statistic	Signif. F
Sex	180.8379	.0671	8.4354	.0047
Age	14.1135	.0052	.6583	.4194
Marital Status	49.4591	.0095	.2969	.8792
Education	51.2368	.0190	.4780	.7918
Geographical Area	82.1398	.0305	1.9158	.1535
Employing Organization	175.3696	.0651	1.6361	.1591
Position Held	53.2660	.0198	1.2432	.2938
Contact with Male Nurses	19.1079	.0071	.8913	.3478
Time Employed as RN	7.2738	.0027	.3393	.5618
Time as RN	12.6582	.0047	.5905	.4443
Specialty Area	53.4497	.0198	.4986	.7765
Constant = 28.73	Multiple R = .562			
F = 1.42	Multiple R-squared = .316			
p = > 0.05				

Table 15 shows the frequencies and percentages of the men and women from the current study against the absolute value, ordinal score ranges for Role 5. Scores falling into the following ranges are labeled by the researcher as: (18-35)-"very negative," (36-47)-"somewhat negative," (48-60)-"neutral," (61-72)-"somewhat positive," and (73-90)-"very positive." It was noted that the women appeared to be slightly more positive toward nursing as a career with 36.1 percent indicating positive responses compared to the men with 21.1 percent positive. However, this appeared to be offset by the gender-specific Role 5 mean total scores both falling into the neutral range of the scale.

Table 15

Scores Achieved on the Role 5 Subset by 1989 Male and Female  
Subjects According to Absolute Value Score Ranges

Ranges	Male Subjects N = 38		Female Subjects N = 98	
	Number	Percentage	Number	Percentage
8-35	0	0.0	0	0.0
36-47	3	7.9	5	5.2
48-60	27	71.0	57	58.7
61-72	8	21.1	33	34.0
73-90	0	0.0	2	2.1
 Totals	38	100.0	97	100.0
 Mean	= 55.79		1 Missing	
Stddev.	= 6.04		Mean = 58.36	
Range	= 44-70		Stddev. = 7.41	
			Range = 45.81	

A t-test was used to differentiate the gender differences of the gender-specific Role 5 mean total scores. The t-statistic was -1.23 and was not significant with a  $p > 0.05$  for a two-tailed test of 133 degrees of freedom. The results supported the observation made regarding the data illustrated in Table 15 which placed the majority of both sexes in the neutral range concerning their attitudes toward nursing as a career.

Multiple regression analysis was also done using the total sample Role 5 mean total score as the dependent variable and the same eleven

independent variables listed for the first hypothesis. Table 16 shows the results of this test.

Table 16

Multiple Regression Results, Total Sample Role 5 Mean Total Score  
With Demographic Independent Variables (N = 136)

Independent Variables	Sum of Squares	R Square Change	F Statistic	Signif. F
Sex	270.9271	.0475	6.0759	.0157
Age	31.0664	.0054	.6967	.4062
Marital Status	212.5764	.0372	1.1918	.3202
Education	68.7088	.0120	.3082	.9068
Geographical Area	10.1831	.0018	.1142	.8922
Employing Organization	482.0575	.0845	2.1621	.0656
Position Held	60.3011	.0106	.6762	.5112
Contact with Male Nurses	4.7531	.0008	.1066	.7448
Time Employed as RN	15.5037	.0027	.3477	.5570
Time as RN	12.3620	.0022	.2772	.5999
Specialty Area	186.6308	.0327	.8371	.5270

Constant = 60.49      Multiple R = .566  
 F = 1.46      Multiple R-squared = .320  
 p = > 0.05

The only independent variable demonstrating a significant correlation was sex with a p < 0.05. In this part, no significant relationship was found between the eleven demographic variables with the total sample Role 5 mean total score (see Table 16).

Interpretation of Findings

While some statistically significant findings resulted from this study, none of the hypotheses were supported. The interpretation of

findings will be discussed separately for each hypothesis.

The first hypothesis, that female registered nurses hold generally positive attitudes toward male registered nurses was not supported. By comparing the female sample from Fottler's 1973 study with the women from the current research, it was found that there is a significant difference between the 1973 and the current study at a  $p < 0.01$ . The current study shows a lower score than the 1973 study. This seems to counter the anticipated results based on Fottler's 1973 study which indicated that female nurses held generally positive attitudes toward men in nursing. The male sample in this study shows more positive attitudes toward men in nursing than does the female sample. The multiple regression between the total sample Overall mean total score and eleven demographic items does not reach to the  $p < 0.05$  level. A repeat of the multiple regression using the total sample Fottall mean total score identified sex and the length of time employed as a nurse as being significant for their individual r-square values. The eleven independent variables accounted for 39 percent of the variance for the total sample Fottall mean total score.

The second hypothesis, testing the affect of proximity on the attitudes of registered nurses toward men in nursing, was not supported. The correlation between the number of male nurses worked with during a career and the total sample Proximity mean total score was significant but had an extremely low r-squared value. There was no correlation between the same variable and the gender-specific Proximity mean total scores. The multiple regression also failed to

identify any independent demographic variables having any significance with the total sample Proximity mean total score. Although this research did not support the second hypothesis, the literature does support the idea that proximity between individuals, or groups, tends to foster positive attitudes one to the other (Tubbs & Moos, 1977).

The third hypothesis which tested the affect of experience and proximity on the perception of equity of exchange was partially supported by the number of male registered nurses worked with during a nursing career. There was a significant ( $p < 0.05$ ) positive correlation between the number of male nurses worked with and the total sample Equity mean total score. The variables of the length of time as a nurse and the length of time employed as a nurse showed a significant ( $p < 0.01$ ) negative correlation with the total sample Equity mean total score. However, there were low correlation coefficients and coefficients of determination associated with each of these three variables relative to the total sample Equity mean total score. There was no correlation for these same variables when correlated with the gender-specific Equity mean total scores.

Multiple regression using the total sample Equity mean total score as the dependent variable and the eleven demographic independent variables failed to yield any significant relationships between equity of exchange and the eleven independent variables. Although this research did not support this hypothesis, the literature does support the idea that the perception of equity of exchange between individuals, or groups of the same status, will tend to support

positive attitudes one for the other. Perception of inequity of exchange will tend to foster negative attitudes between individuals or groups (Tubbs & Moos, 1977; Homans, 1961; Adams, 1965).

Hypothesis four stated that male registered nurses perceive that female registered nurses hold positive attitudes toward men in nursing. The hypothesis was established to test how well men were viewed as fulfilling the role of nurse as seen by the women in the profession. This hypothesis was not supported. The results of the t-test comparison for the gender-specific Role 4 mean total scores identified a significant disparity between what the women and men reported. The negative t-statistic and the significance level of  $p < 0.01$  failed to support a perception of positive attitudes felt by the men, as expressed by the women. In fact, just the opposite is indicated--that the men perceive negative attitudes toward them as expressed by the women. Multiple regression failed to identify any demographic independent variables, other than sex, which correlated significantly with the total sample Role 4 mean total score. Apparently, significant role-stress still exists within the profession since the men do not perceive positive attitudes toward their presence in nursing by the women. The results for this hypothesis also tend to substantiate the findings for hypothesis number one based on the gender-specific sample responses to the Fotall subset.

The fifth hypothesis states that male registered nurses perceive the profession as a rewarding career with fewer limitations on the scope of practice and potential for advancement based on gender-

specificity than do female registered nurses. This hypothesis was also not supported by this study. Results of t-test comparison failed to identify any significant differences between the men and women pertaining to their perceptions of nursing as a rewarding career, with full scope of practice, and potential for advancement. Multiple regression studies failed to identify any demographic independent variables, other than sex, which correlated significantly with the total sample Role 5 mean total score. Aside from a slightly higher percentage of women having positive Role 5 mean scores than the men, there are no statistically significant results to support this hypothesis.

## CHAPTER V

## SUMMARY, FINDINGS, CONCLUSIONS

In the past, each gender's attitudes and responses toward men in nursing has been studied independently. Few studies have attempted to directly compare male and female registered nurses' attitudes toward men in the profession. The current research is based on a study done by M.D. Fottler in 1973. There have been 15 years of significant change in the society and the profession since Fottler's study. Further, Fottler studied only the female nurses' attitudes toward men in nursing and did not ask the men how they perceived themselves, nor ascertain their attitudes toward men in the profession.

Statement of the Purpose

This study was designed to help identify the potential for gender-based competition by assessing the attitudes of both male and female registered nurses toward men in nursing. Factors to be considered were: (a) the affect of proximity to male registered nurses, (b) gender-based equity of exchange, and (c) the role of the male in registered nursing.

There were six research questions associated with the current study. First, do female registered nurses, in the late 1980's, still maintain a generally positive attitude toward male registered nurses, or has this changed over the past 15 years? Secondly, do less

experienced registered nurses with limited exposure to male registered nurses still hold more negative attitudes toward men in the profession? Third, to what extent do female registered nurses hold the perception of gender-based professional inequity of exchange, with employer discrimination in favor of male registered nurses? Fourth, do male registered nurses hold generally positive attitudes toward men in the profession? Fifth, do male registered nurses see nursing as a viable, rewarding profession for men? And finally, do male registered nurses perceive that female registered nurses hold generally positive attitudes toward them?

#### Hypotheses

The following hypotheses were proposed to assess the answers to these questions:

1. Female registered nurses hold generally positive attitudes toward male registered nurses.
2. Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses hold generally more positive attitudes toward men in nursing than do less experienced nurses.
3. Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses perceive more exchange equity between male and female registered nurses and less gender-specific competition than do less experienced registered nurses.

4. Male registered nurses perceive that female registered nurses generally hold positive attitudes toward men in nursing.
5. Male registered nurses perceive the profession as a rewarding career with fewer limitations on the scope of practice and potential for advancement based on gender-specificity than do female registered nurses.

#### Findings

The sample for this research consisted of 100 male and 300 female registered nurses. Both gender-specific samples were randomly selected from the mailing list of the Continuing Nurse Education Department at the sponsoring university. A self-administered questionnaire consisting of an introductory letter, a 25 item demographic portion, and a 47 item, five-point Likert scaled Nurse Attitudes Assessment Schedule (NAAS) was mailed to all subjects. The NAAS incorporated the same assessment schedule used by Fottler in 1973 as the first 10 items. An additional 37 items were added to the current study to test the theoretical questions related to proximity, equity of exchange, and role. Due to promised anonymity to all subjects, no follow-up mailing was done.

Thirty days were allocated for return of completed questionnaires. The total number returned was 145 for a total response rate of 36 percent. Only 136 were used for data analysis. The 9 not used for analysis were either insufficiently complete, or

were returned after the data collection cut-off date. The total usable response rate was 34 percent, with gender-specific usable rates of 38 percent for the males and 33 percent for the females.

The first hypothesis was used to answer the research questions dealing with the attitudes of female and male nurses toward men in nursing. The main emphasis was placed on the comparison of the current female sample with Fottler's 1973 female sample. A second comparison was made between the male and female subjects in the current study.

Based on the same 10 items used by Fottler (Fotall subset) in 1973, the current female sample mean total score demonstrated a negative change when compared to the mean total score for Fottler's 1973 female sample. A similar finding was observed when the current female sample's mean total score was compared to that of the current male sample for the same 10 items. No difference was noted between the current male and female samples' Overall mean total scores.

Separate multiple regression analyses were performed using the Fotall and Overall mean total scores as the dependent variables. The same eleven independent variables were used for each regression analysis, and were obtained from information supplied in response to the demographic portion of the questionnaire. No relationships were found between the eleven independent variables and the total sample Fotall and Overall mean total scores.

The second hypothesis was designed to elicit attitudinal responses relative to proximity to male nurses. Separate Pearson

Product Moment Correlations were run using the total and gender-specific Proximity mean total scores correlated with the length of time as a registered nurse, the length of time employed as a registered nurse, and the number of male nurses worked with during the length of the individual's career. The correlation between the total sample Proximity mean total score and the number of male nurses worked with was the only one identified as significant  $p < 0.01$ . However, the coefficient of determination (r-squared) was low at 4.7 percent.

A multiple regression analysis was done using the same eleven independent variables identified for hypothesis number one. No relationships were found between the eleven independent variables and the total sample Proximity mean total score.

The third hypothesis tested the theory of equity of exchange. Separate Pearson Product Moment Correlations were done using the total sample and gender-specific Equity mean total scores correlated with the same variables used with hypothesis number two. All three variables were significant with time as a nurse and time employed as a nurse having a  $p < 0.01$ , and the number of male nurses worked with having a  $p < 0.05$ . None of the variables demonstrated a coefficient of determination (r-squared) greater than 6.7 percent.

Multiple regression analysis was done using the total sample Equity mean total score as the dependent variable. The independent variables were the same eleven used with hypotheses one and two. Four of the independent variables were individually significant at  $p < 0.05$  with the total regression significant at  $p < 0.01$ . However, the

individual independent variable coefficients of determination ( $r^2$ ) never exceeded 7 percent, and the overall regression coefficient of determination ( $R^2$ ) was 46 percent. Hypothesis number three was not supported.

The fourth hypothesis tested role theory and was designed to gather information concerning how male nurses perceived the female nurses' attitudes toward them. A t-test was run between the gender-specific Role 4 mean total scores. The results were significant at a  $p < 0.01$ , with the male Role 4 mean total score more negative than the female mean total score.

Multiple regression was also run using the total sample Role 4 mean total score as the dependent variable. The independent variables were the same eleven as those previously identified. Only one independent variable (sex) was identified as significant at  $p < 0.01$ . However, the coefficient of determination ( $r^2$ ) of 6.7 percent was weak. The overall regression significance was  $p > 0.05$ .

The direction of the t-test comparison, though significant, was counter to the stated direction of the hypothesis. Multiple regression analysis failed to identify any independent variables which were both significant and meaningful. Hypothesis number four was not supported.

The fifth hypothesis was designed to also test the role of the male in nursing by gathering information concerning nursing as a rewarding profession for men. A t-test was run between the gender-specific Role 5 mean total scores. No significant difference was

noted with a  $p > 0.05$ .

Multiple regression analysis was done using the total sample Role 5 mean total score as the dependent variable and the eleven independent variables previously identified. Only one independent variable (sex) was identified as significant at  $p < 0.05$  and a coefficient of determination ( $r$ -squared) of 4.7 percent. The overall regression was not significant at  $p > 0.05$  with a coefficient of determination ( $R$ -squared) of 32 percent.

Hypothesis five t-test results were not significant. Multiple regression analysis failed to identify any independent variables which were both significant and meaningful. Hypothesis number five was not supported.

#### Conclusions

Based on these findings, in relation to the first hypothesis it may be concluded that female registered nurses have become more negative in their attitudes toward men in the profession over the past 15 years. The attitudes of male nurses toward men in the profession are more positive than the attitudes of the female nurses.

Proximity to male nurses and the perceptions of equity or inequity of exchange do not independently, directly affect the attitudes of either male or female nurses toward men in nursing. The indications are that a multitude of variables are responsible for affecting attitudes, positive or negative, toward men in nursing.

While the gender-specific Role 4 total scores and the related gender-specific percentages indicate that female nurses express positive attitudes toward the males, the same data demonstrate that the men do not perceive that their female colleagues hold positive attitudes toward them. The combination of the t-test results for the gender-specific Fotall mean total scores and those for the gender-specific Role 4 mean total scores tend to support that what the women believe they say is not perceived in the same way by the men.

Importantly, neither male nor female nurses identified the profession as a viable and rewarding one. The lack of significant differences between the gender-specific Role 5 mean total scores, coupled with the majority of both samples falling into the neutral score range, indicates a feeling of ambivalence is present concerning the profession.

#### Discussion

A number of factors associated with this study may have contributed to the nature of the findings. First, the coefficient of reliability for the entire NAAS was .76. While this is a fairly strong indication of reliability for an untried instrument, it cannot attest to the validity of the instrument. Second, the independent variables used in the Pearson Product Moment Correlations and the multiple regression analyses may not have been sufficiently isolated from the effects of one another. Therefore, it was not possible to identify any individual, meaningfully significant effects on the

dependent variables. Finally, the individual subsets of attitudinal statements were not evaluated for reliability independent of the entire NAAS. It is therefore possible that while the overall instrument obtained a reliability coefficient of .76, one or more of the individual subsets failed to match this performance, for the sample chosen. Further testing with the same assessment schedule, but with different samples would be necessary to establish more accurate overall and subset reliability coefficients.

The results of this study have limited generalizability due to the limitations of this research. Future studies should review the recommendations made for any replications prior to the implementation of similar research. Caution is also recommended in using the findings of this study based on the lack of generalizability.

#### Implications

If the results of this study are correct, then the implications for nursing could be considerable. The results of the t-test comparison of the gender-specific Role 5 mean total scores indicate that neither the men, nor the women view nursing as a highly rewarding career. In fact, the strong central tendency of the responses indicates a feeling of ambivalence concerning the profession. This would tend to support the Nursing 88 poll of February 1988 which identified that less than one third of the nurses would choose a nursing career a second time. Additionally, the same poll indicated that 60 percent of the nurses have not encouraged other people to enter the profession.

Additionally there is the indication that women currently in nursing may hold negative attitudes toward men in the profession. This study also identified that the men are aware of these attitudes. These two factors are seen as significant barriers to actively recruiting men to help resolve the current shortage. The end result is that while the nursing profession is experiencing an identified critical shortage of women entering nursing (Nurses, 1987; Scherer, 1987) the additional negative pressures by the female nurses toward men already in the profession will only reduce the availability of a potential resource.

#### Limitations

Several limitations related to the study design and the nature of the variables under study are inherent in this research.

The source from which the samples were drawn may have resulted in some degree of homogeneity of attitude independent of gender-specificity. Since the state in which the study was conducted does not require continuing education for maintenance of licensure, those individuals who voluntarily attend professional education programs may share similar attitudes toward the profession.

The sample is representative only of registered nurses licensed to practice in the Western New York geographic area and therefore, may not be generalizable to the total population of nurses. Even with the population mix taken from rural, suburban, and urban locations, the nurses of Western New York may not demonstrate the attitudes expressed

by nurses working in and around larger metropolitan, or more rurally isolated areas.

As with Fottler's 1973 study, this research dealt with attitudinal data and not observed behavioral data. The measure was based on the existence of prejudicial attitudes and not actual discrimination. However, if attitudes are truly defined as expressions of both overt and covert statements, actions, and non-verbal behaviors exhibited by one person toward another (Rogers, 1961), then an assessment of attitudes could be an effective measure of actual or potential behavior.

#### Recommendations for Further Research

The following recommendations are made for further research:

- A. This study should be repeated utilizing the same survey tool, but in a different geographic setting having a similar rural, suburban, urban mix as Western New York.
- B. This survey should be repeated utilizing the same survey tool, but in a large metropolitan setting (i.e., New York City, Chicago, Boston, Los Angeles) to study the effect of a complex urban setting on gender-based competition and attitudes toward men in nursing.
- C. This study should be repeated utilizing a stratified sample of male and female nurses with less than two years experience and male and female nurses with eight to ten years of experience. This would help determine if positive or negative attitudes toward men in nursing are more

characteristic of persons earlier, or later in their careers.

- D. This study should be repeated utilizing male and female samples of sufficient size from different nursing specialties to determine if positive or negative attitudes toward men in nursing are more acutely associated with certain areas of specialization.
- E. This study should be repeated focusing on different levels of the nursing service hierarchy to examine the effects of increased leadership positions on attitudes toward men in nursing.

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**APPENDIX A**

**Introductory Letter, Demographic Questionnaire,  
and Nurse Attitudes Assessment Schedule**

Reply To  
Atten of: School of Nursing  
Dept. of Continuing Nurse Education  
124 Stockton Kimball Tower  
State University of New York at Buffalo  
Buffalo, New York 14214

Dear Colleague:

I am a graduate student at SUNY/UB working toward a Master's Degree in Nursing Administration. I would like to engage your assistance in completing a research project dealing with the attitudes of male and female registered nurses toward men in nursing. This research is a replicaiton and comparative study based on work done in 1973. The objective is to compare the responses from this research with those from the 1973 study to ascertain if there has been an attitudinal change toward men in the profession over the past 15 years.

I have included a Demographic Questionnaire and a Nurse Attitudes Assessment Schedule with this letter. Completion of both the questionnaire and the assessment schedule will require approximately 25 minutes or less of your time. Also, please note that a stamped, addressed envelope has been enclosed for your use. If you decide to participate in this research, simply complete the enclosed questionnaire and assessment schedule as directed, seal it in the envelope provided, and mail it. I request that you return the completed questionnaire and assessment schedule within 30 days of receipt. Return of the survey material constitutes your agreement to participate in the research.

All information on the questionnaire and the assessment schedule will be held confidential. Any information submitted will only be used to establish general categories for data analysis, and will in no way be connected to any name, individual, or identifying location.

The potential benefit of this research is that it may provide data to aid in recruitment of nurses to fill the anticipated professional requirements for the 1990's.

I would like to take this opportunity to personally thank you for your time and effort.

Sincerely,

Ralph E. Minton, Graduate Nursing Student  
State University of New York at Buffalo

## Demographic Questionnaire

Please complete the following items by either circling the letter (only one selection per question), or filling in the blank.

All information on the questionnaire and survey will be held confidential. Any information submitted will only be used to establish general categories for data analysis, and will in no way be connected to any name, individual, or identifying location.

Your voluntary cooperation is greatly appreciated.

7. How long (cumulative) have you been employed as a registered nurse? (in years):
8. How long have you been in your current position? (in years):
9. Have you ever served in the armed forces? (circle one):  
(a) Yes (2) No
10. If yes tot item #9, was your last rank held: (circle one)  
(1) Officer (2) Enlisted
11. Did you serve in a nursing or medical specialty while in military service? (circle one):  
(1) Yes (2) No
12. If yes to #11, were you a: (circle one)  
(1) Nurse (3) Dental Technician (Specialist)  
(2) Medic (Corpsman) (4) Other (specify):
13. Have you worked in any medical field prior to becoming a registered nurse? (circle one):  
(1) Yes (2) No
14. If you entered yes for #13, in what capacity did you work? (circle one):  
(1) Ambulance Service (5) Paramedic  
(2) Orderly (6) LPN/LVN  
(3) Nurse's Aid (7) Other (specify):  
(4) EMT
15. Were you influenced by a blood line relative, spouse, or other family member in your decision to enter nursing? (circle one):  
(1) Yes (2) No



21. What is your current area of practice? (circle one):

(1) Medical	(10) Nursery ICU
(2) Surgical	(11) Emergency Room
(3) Psychiatric	(12) Operating Room
(4) Orthopedics	(13) Oncology
(5) Neurology	(14) Obstetrics
(6) CCU	(15) Gynecology
(7) ICU	(16) Administration
(8) Pediatrics	(17) Nursing Education
(9) Nursery	(18) Other (specify):

22. Are there male RN's assigned to your work unit/area? (circle one):

(1) Yes (2) No

23. If you answered yes to #22 how many male RN's are assigned to your work unit/area? (Include yourself if you are male):

24. In your nursing career with how many male RN's have you worked?

25. Are you a member of the New York State Nurses Association, District 1? (circle one):

Thank you for completing the Demographic Questionnaire. Please continue with the Nurse Attitudes Assessment Schedule.

### Nurse Attitudes Assessment Schedule

Perception of another person's attitude refers to your personal interpretive feelings of the other person's statements, actions, and non-verbal behaviors toward you. Perceptions may be classified as either positive or negative in relation to another's overt and covert behaviors. Perception constitutes your emotive response to another's actions toward you.

The following statements have been identified as representing attitudinal actions which occur in the nursing work setting. Please read each statement carefully and indicate your level of agreement with it using the following scale as a guide.

#### AGREEMENT SCALE

1 = Strongly Disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly Agree

Please place the number of your level of agreement in the parenthesis at the beginning of each attitudinal statement. Remember to indicate your initial reaction. Do not deliberate over the statement. There are no right or wrong answers.

Thank you for your voluntary participation.

#### Attitudinal Statements

- ( ) 1. The male nurse, as head of the household, should be given a larger salary than the female nurse.
- ( ) 2. Since a man can tolerate more pressure, the male nurse should be expected to assume full responsibility in an emergency situation.
- ( ) 3. Female nurses prefer males as their immediate supervisors.
- ( ) 4. Professional competition exists between male and female nurses.
- ( ) 5. The male nurse is better suited to perform some nursing functions.

## AGREEMENT SCALE

1 = Strongly Disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly Agree

- ( ) 6. On the whole, the physician seems to accept the male nurse.
- ( ) 7. Male nurses will play an increasingly important role in health care.
- ( ) 8. On the whole, the patient seems to accept the male nurse.
- ( ) 9. The nursing profession should encourage the entry of more men.
- ( ) 10. The male nurse can perform most nursing activities as well as his female counterparts.
- ( ) 11. Generally, female nurses make better nurses than males.
- ( ) 12. On the whole, male nurses receive higher salaries than female nurses.
- ( ) 13. Increasing the number of men entering nursing will lead to an increase in all nursing salaries.
- ( ) 14. Male nurses tend to be promoted at a faster rate than female nurses.
- ( ) 15. It is true that men in nursing approach their career choice with a greater intent toward long term gains than women.
- ( ) 16. Men who enter nursing are subjected to reverse discrimination from female nurses based on the historical precedent that nursing is a female profession.
- ( ) 17. Regardless of gender, all nurses do have full range of practice including gynecological and maternity care.
- ( ) 18. Female nurses believe that male nurses generally obtain greater respect from physicians simply because they are men.
- ( ) 19. Men in nursing pose a threat to the predominantly female profession of nursing.

## AGREEMENT SCALE

1 = Strongly Disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly Agree

( ) 20. Men in nursing are accepted by patients, regardless of gender, for individual care the same as women nurses.

( ) 21. The ideal gender composition for nursing is 50% female and 50% male.

( ) 22. Female nurses stereotype male nurses as "strong," seeking them to assist with heavy work.

( ) 23. Male and female nurses are considered equally for career advancement.

( ) 24. Staff level nursing is a viable, life long career option.

( ) 25. Patient care assignments given to male nurses are based predominantly on the nurse's gender relative to the patient's gender.

( ) 26. Men choose to work in ICU, CCU, ER, OR, education, and administration primarily because it allows them to reduce their gender based role-strain.

( ) 27. Patient care assignments are made based on the individual nurse's abilities and not on the individual nurse's or patient's gender.

( ) 28. When male nurses are available, combative or abusive patients are usually assigned to them for care.

( ) 29. Male nurses may care for female patients so long as the patient is elderly.

( ) 30. Male and female nurses are considered equally for educational grants paid through the institution's education office.

( ) 31. In general, monetary compensation in nursing is not sufficient to encourage significant numbers of males to enter nursing.

## AGREEMENT SCALE

1 = Strongly Disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly Agree

( ) 32. Female nurses tend to ignore male nurses' suggestions for work center improvements.

( ) 33. Women believe they make better nurses than men.

( ) 34. Male nurses should be assigned to care for female patients regardless of the patient's age.

( ) 35. Men in nursing tend to be utilized as orderlies rather than co-equal professionals.

( ) 36. Based on the scope of professional options available, I would encourage men to enter nursing.

( ) 37. A nurse's unit of assignment (i.e., orthopedics, labor & delivery, psych, nursery) is based on the individual nurse's request, instead of gender.

( ) 38. Female nurses tend to see men in the profession as a threat to their individual career progression.

( ) 39. Nurses, regardless of gender, tend to move to education, administration, and specialized patient care areas as a method of increasing their control over professional nursing practice.

( ) 40. Female nurses believe they are better able to help patients cope with the emotional aspects of hospitalization.

( ) 41. Regardless of gender, nurses are compensated equally for equivalent work done.

( ) 42. Movement of male nurses away from staff positions into specialty areas, education, and administration is predominantly based on increased financial reward.

## AGREEMENT SCALE

1 = Strongly Disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly Agree

( ) 43. I have missed out on promotion opportunities based predominantly on my gender and not due to lack of qualifications required for the new position.

( ) 44. As more men enter nursing, I anticipate that pay and working conditions will improve.

( ) 45. Any competition between male and female nurses is founded on the men being paid more than the women for the same position.

( ) 46. Patients who require extensive physical lifting and moving are usually assigned to male nurses.

( ) 47. Male nurses are used as buffers between physicians and female nurses during professional confrontations.

**APPENDIX B**

**Hypothesis-Specific Attitudinal Statement Subsets**

### Attitudinal Statements Supporting Hypothesis #2

Hypothesis: Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses hold generally more positive attitudes toward men in nursing than do less experienced nurses.

2. Since a man can tolerate more pressure, the male nurse should be expected to assume full responsibility in an emergency situation.
5. The male nurse is better suited to perform some nursing functions.
7. Male nurses will play an increasingly important role in health care.
8. On the whole, the patient seems to accept the male nurse.
9. The nursing profession should encourage the entry of more men.
11. Generally, female nurses make better nurses than males.
19. Men in nursing pose a threat to the predominantly female profession of nursing.

### Position Statements

1. Agreement with positive statements or disagreement with negative statements indicates a positive attitude toward men in nursing.
2. Agreement with negative statements or disagreement with positive statements indicates a negative attitude toward men in nursing.

## Attitudinal Statements Supporting Hypothesis #3

Hypothesis: Registered nurses, regardless of gender, with longer active nursing experience and having greater contact with male nurses perceive more exchange equity between male and female registered nurses and less gender-specific competition than less experienced registered nurses.

1. The male nurse, as head of the household, should be given a larger salary than the female nurse.
3. Female nurses prefer males as their immediate supervisors.
4. Professional competition exists between male and female nurses.
6. On the whole, the physician seems to accept the male nurse.
10. The male nurse can perform most nursing activities as well as his female counterparts.
12. On the whole, male nurses receive higher salaries than female nurses.
13. Increasing the number of men entering nursing will lead to an increase in all nursing salaries.
14. Male nurses tend to be promoted at a faster rate than female nurses.
21. The ideal gender composition for nursing is 50% female and 50% male.
23. Male and female nurses are considered for career advancement equally.
30. Male and female nurses are considered equally for educational grants paid through the institution's education office.
41. Regardless of gender, nurses are compensated equally for equivalent work done.
43. I have missed out on promotion opportunities based predominantly on my gender and not due to lack of qualifications required for the new position.
45. Any competition between male and female nurses is founded on the inequitable dispersion of rewards to the men.

**Position Statements**

1. Agreement with positive statements or disagreement with negative statements indicates that the respondent sees more exchange equity and less gender-specific competition between male and female nurses.
2. Disagreement with positive statements or agreement with negative statements indicates that the respondent sees less exchange equity and more gender-specific competition between male and female nurses.

## Attitudinal Statements Supporting Hypothesis #4

Hypothesis: Male registered nurses perceive that female registered nurses generally hold positive attitudes toward men in nursing.

16. Men who enter nursing are subjected to reverse discrimination from female nurses based on the cultural precedent that nursing is a female profession.
18. Female nurses believe that male nurses generally obtain greater respect from physicians simply because they are men.
22. Female nurses stereotype male nurses as "strong," seeking them to assist with heavy work.
32. Female nurses tend to ignore male nurses' suggestions for work center improvements.
33. Women believe they make better nurses than men.
38. Female nurses tend to see men in the profession as a threat to their individual career progression.
40. Female nurses believe they are better able to help patients cope with the emotional aspects of hospitalization.
47. Male nurses are used as buffers between physicians and female nurses during professional confrontations.

## Position Statements

1. Male respondent agreement with these negative statements indicates they perceive negative attitudes toward them.
2. Female respondent agreement with these negative statements indicates generally negative attitudes toward men in nursing.
3. Male respondent disagreement with these negative statements indicates they perceive positive attitudes toward them.
4. Female respondent disagreement with these negative statements indicates generally positive attitudes toward men in nursing.

**Attitudinal Statements Supporting Hypothesis #5**

**Hypothesis:** Male registered nurses see the profession as rewarding with fewer limitations on the scope of practice and potential for advancement based on gender-specificity than female registered nurses.

15. It is true that men in nursing approach their career choice with a greater intent toward long term gains than women.
17. All nurses have full range of practice including gynecological and maternity care.
20. Men in nursing are accepted by patients, regardless of gender, for individual care the same as women nurses.
24. Staff level nursing is a viable, life long career option.
25. Patient care assignments given to male nurses are based predominantly on the nurse's gender relative to the patient's gender.
26. Men choose to work in ICU, CCU, ER, OR, education, and administration primarily because it allows them to reduce their gender based role-strain.
27. Patient care assignments are made based on the individual nurse's abilities and not on the individual nurse's or patient's gender.
28. When male nurses are available, combative or abusive patients are usually assigned to them for care.
29. It is permissible for male nurses to care for female patients so long as the patient is elderly.
31. In general, monetary compensation in nursing is not sufficient to encourage significant numbers of males to enter nursing.
34. Male nurses should be assigned to care for female patients regardless of the patient's age.
35. Men in nursing tend to be utilized as orderlies rather than co-equal professionals.
36. Based on the scope of professional options available, I would encourage men to enter nursing.
37. A nurse's unit of assignment (i.e., orthopedics, labor & delivery, psych, nursery) is based on the individual nurse's request, instead of gender.

39. Nurses, regardless of gender, tend to move to education, administration, and specialized patient care areas as a method of increasing their control over professional nursing practice.
42. Movement of male nurses away from staff positions into specialty areas, education, and administration is predominantly based on increased financial reward.
44. As more men enter nursing, I anticipate that pay and working conditions will improve.
46. Patients who require extensive physical lifting and moving are usually assigned to male nurses.

#### Position Statements

1. Agreement with positive statements or disagreement with negative statements indicates a positive attitude toward nursing as a rewarding career with fewer limitations based on gender-specificity.
2. Disagreement with positive statements or agreement with negative statements indicates a negative attitude toward nursing as a rewarding career with increased limitations based on gender-specificity.

## Attitudinal Statements For All Subset, Hypothesis #1

Hypothesis: Registered nurses hold generally positive attitudes toward male registered nurses.

1. The male nurse, as head of the household, should be given a larger salary than the female nurse.
2. Since a man can tolerate more pressure, the male nurse should be expected to assume full responsibility in an emergency situation.
3. Female nurses prefer males as their immediate supervisors.
4. Professional competition exists between male and female nurses.
5. The male nurse is better suited to perform some nursing functions.
6. On the whole, the physician seems to accept the male nurse.
7. Male nurses will play an increasingly important role in health care.
8. On the whole, the patient seems to accept the male nurse.
9. The nursing profession should encourage the entry of more men.
10. The male nurse can perform most nursing activities as well as his female counterparts.

## Position Statements

1. Agreement with positive statements or disagreement with negative statements indicates a positive attitude toward men in nursing.
2. Disagreement with positive statements or agreement with negative statements indicates a negative attitude toward men in nursing.

Note: The total score for all 47 items contained in the Nurse Attitudes Assessment Schedule was also used to assess nurses' attitudes toward men in nursing.

**APPENDIX C**

**Letter, Research and Human Subjects Review Committee**



**UNIVERSITY AT BUFFALO**  
STATE UNIVERSITY OF NEW YORK

**School of Nursing**  
926 Stockton Kimball Tower  
Buffalo, New York 14214  
(716) 831-2734

July 27, 1988

Mr. Ralph E. Minton  
8390 Clarence Center Rd.  
Clarence Center, NY 14032

Dear Mr. Minton:

Your project, Attitudes of Female and Male Nurses Towards Men in Nursing, has been reviewed and approved.

Please inform the Research and Human Subjects Review Committee if any eventuality should arise with your research which raises additional issues with respect to risks to the subjects and/or confidentiality of the data.

Sincerely,

A handwritten signature in black ink, appearing to read "Gail P. Brown, Ph.D." followed by a date.

Gail. P. Brown, Ph.D.  
Interim Chairperson  
Research and Human Subjects  
Review Committee

GPB:mb

cc: M. Stanton

**APPENDIX D**

**Total Sample, Overall and Subset, Item Specific  
Mean Scores**

Table D-1

Mean Responses Per Variable: Overall Total Sample (Male and Female)

	N = 136
	47 Items
V26 Male Nrs Head of Household	1.24
V27 Male Nrs Can Tolerate More	1.36
V28 Female RNs Prefer Male Suprvsrs	2.04
V29 Professional Compet Exists	2.81
V30 Male RNs Will Play Imprt Role	2.62
V31 MDs Accept Male RNs	3.39
V32 Male RNs Better Suited	3.73
V33 Pts Accept Male RNs	3.45
V34 Encourage More Men To Enter	4.26
V35 Male RNs Perform Nurg	4.18
V36 Female RNs Make Better Nurs	2.19
V37 Male RNs Receive Higher Salaries	2.61
V38 Inc Male RNs Lead to Hi Salaries	3.61
V39 Male RNs Promoted Faster	2.96
V40 Male RNs-Greater Intent Long Trm	3.21
V41 Male RNs-Reverse Discrimination	3.07
V42 All Nurses-Full Range of Pract	3.32
V43 Male RNs-Greater Respect from MD	2.97
V44 Male RNs-Threat To Female RNs	1.94
V45 Male RNs Accepted By Pt Reg Gend	2.96
V46 Ideal Gender Composition 50-50	2.98
V47 Male RN Stereo As Strong By Fem	3.49
V48 Male/Fem RNs Equal For Advance	3.16
V49 Staff Nrsg Viable Career Option	3.14
V50 Male RN Pt Assign Based On Gend	2.76
V51 Male RN Spec Area To Reduce Strn	3.13
V52 Pt Assign Based On Ability	3.57
V53 Maie RNs Assign Combative Pts	3.41
V54 Male RNs May Care Elderly Fem	2.11
V55 Male/Female RNs Equal Ed Grants	3.65
V56 Pay Not Sufficient Intrst Males	4.02
V57 Female RNs Ignore Male Suggest	2.18
V58 Females Believe Make Better RNs	2.87
V59 Male RNs Assgn Fem Pts Reg Age	3.54
V60 Male RNs Utilized As Orderlies	2.40
V61 Based On Nrsg Opt Enc More Male	3.43
V62 Unit Assgn Based On Req Not Gend	3.67
V63 Female RNs See Male RN As Threat	2.43
V64 RNs Move Spec Area Inc Prof Cont	3.77
V65 Female RNs Better Able Emotional	2.82

Table D-1 - Continued

	N = 136
	47 Items
V66 Equal Compensation Equal Work	3.46
V67 Male RNs To Spec Areas More Pay	3.61
V68 Missed Promotion Based On Gender	1.78
V69 More Male RNs Improve Pay & Wrk	3.68
V70 Complete Based On Inequity Reward	2.41
V71 Male RNs Assigned Pts Move/Lift	3.24
V72 Male RNs Conflict Buffer With MD	2.18

Table D-2

Mean Responses Per Variable: Proximity Total Sample (Male and Female)

	N = 136
	7 Items
V27 Male Nrs Can Tolerate More	1.36
V30 Male RNs Will Play Imprt Role	2.62
V32 Male RNs Better Suited	3.73
V33 Pts Accept Male RNs	3.45
V34 Encourage More Men To Enter	4.26
V36 Female RNs Make Better Nurs	2.19
V44 Male RNs-Threat To Female RNs	1.94

Table D-3

Mean Responses Per Variable: Equity Total Sample (Male and Female)

	N = 136
	47 Items
V26 Male Nrs Head of Household	1.24
V28 Female RNs Prefer Male Suprvsrs	2.04
V29 Professional Compet Exists	2.81
V31 MDs Accept Male RNs	3.39
V35 Male RNs Perform Nurg	4.18
V37 Male RNs Receive Higher Salaries	2.61
V38 Inc Male RNs Lead to Hi Salaries	3.61
V39 Male RNs Promoted Faster	2.96
V46 Ideal Gender Composition 50-50	2.98
V48 Male/Fem RNs Equal For Advance	3.16
V55 Male/Female RNs Equal Ed Grants	3.65
V66 Equal Compensation Equal Work	3.46
V68 Missed Promotion Based On Gender	1.78
V70 Complete Based On Inequity Reward	2.41

Table D-4

Mean Responses Per Variable: Role 4 Total Sample (Male and Female)

	N = 136
	47 Items
V41 Male RNs-Reverse Discrimination	3.07
V43 Male RNs-Greater Respect from MD	2.97
V47 Male RN Stereo As Strong By Fem	3.49
V57 Female RNs Ignore Male Suggest	2.18
V58 Females Believe Make Better RNs	2.87
V63 Female RNs See Male RN As Threat	2.43
V65 Female RNs Better Able Emotional	2.82
V72 Male RNs Conflict Buffer With MD	2.18

Table D-5

Mean Responses Per Variable: Role 5 Total Sample (Male and Female)

	N = 136 47 Items
V40 Male RNs-Greater Intent Long Trm	3.21
V42 All Nurses-Full Range of Pract	3.32
V45 Male RNs Accepted By Pt Reg Gend	2.96
V49 Staff Nrsg Viable Career Option	3.14
V50 Male RN Pt Assign Based On Gend	2.76
V51 Male RN Spec Area To Reduce Strn	3.13
V52 Pt Assign Based On Ability	3.57
V53 Male RNs Assign Combative Pts	3.41
V54 Male RNs May Care Elderly Fem	2.11
V56 Pay Not Sufficient Intrst Males	4.02
V59 Male RNs Assgn Fem Pts Reg Age	3.54
V60 Male RNs Utilized As Orderlies	2.40
V61 Based On Nrsg Opt Enc More Male	3.43
V62 Unit Assgn Based On Req Not Gend	3.67
V64 RNs Move Spec Area Inc Prof Cont	3.77
V67 Male RNs To Spec Areas More Pay	3.61
V69 More Male RNs Improve Pay & Wrk	3.68
V71 Male RNs Assigned Pts Move/Lift	3.24

Table D-6

Mean Responses Per Variable: For All Total Sample (Male and Female)

	N = 136
	47 Items
V26 Male Nrs Head of Household	1.24
V27 Male Nrs Can Tolerate More	1.36
V28 Female RNs Prefer Male Suprvsrs	2.04
V29 Professional Compet Exists	2.81
V30 Male RNs Will Play Imprt Role	2.62
V31 MDs Accept Male RNs	3.39
V32 Male RNs Better Suited	3.73
V33 Pts Accept Male RNs	3.45
V34 Encourage More Men To Enter	4.26
V35 Male RNs Perform Nurg	4.18

**APPENDIX E**

**Gender-Specific, Overall and Subset, Item Specific  
Mean Scores**

Table E-1

Mean Responses Per Variable: Overall Gender-Specific (Male vs Female)

	N=38 Males 47 Items	N=98 Females 47 Items
V26 Male Nrs Head of Household	1.45	1.16
V27 Male Nrs Can Tolerate More	1.47	1.31
V28 Female RNs Prefer Male Suprvsrs	2.71	1.78
V29 Professional Compet Exists	3.05	2.71
V30 Male RNs Will Play Imprt Role	3.18	2.39
V31 MDs Accept Male RNs	3.71	3.27
V32 Male RNs Better Suited	3.87	3.67
V33 Pts Accept Male RNs	3.79	3.32
V34 Encourage More Men To Enter	4.53	4.16
V35 Male RNs Perform Nurg	4.34	4.12
V36 Female RNs Make Better Nurs	1.92	2.29
V37 Male RNs Receive Higher Salaries	2.11	2.81
V38 Inc Male RNs Lead to Hi Salaries	3.66	3.59
V39 Male RNs Promoted Faster	2.58	3.10
V40 Male RNs-Greater Intent Long Trm	3.55	3.07
V41 Male RNs-Reverse Discrimination	3.34	2.97
V42 All Nurses-Full Range of Pract	3.05	3.43
V43 Male RNs-Greater Respect from MD	3.40	2.80
V44 Male RNs-Threat To Female RNs	2.21	1.84
V45 Male RNs Accepted By Pt Reg Gend	3.21	2.87
V46 Ideal Gender Composition 50-50	2.95	2.99
V47 Male RN Stereo As Strong By Fem	4.03	3.29
V48 Male/Fem RNs Equal For Advance	3.34	3.09
V49 Staff Nrs Viable Career Option	2.87	3.25
V50 Male RN Pt Assign Based On Gend	2.71	2.78
V51 Male RN Spec Area To Reduce Strn	2.97	3.18
V52 Pt Assign Based On Ability	3.50	3.59
V53 Male RNs Assign Combative Pts	3.90	3.22
V54 Male RNs May Care Elderly Fem	2.16	2.09
V55 Male/Female RNs Equal Ed Grants	3.55	3.68
V56 Pay Not Sufficient Intrst Males	4.24	3.94
V57 Female RNs Ignore Male Suggest	2.26	2.14
V58 Females Believe Make Better RNs	3.18	2.75
V59 Male RNs Assgn Fem Pts Reg Age	3.55	3.53
V60 Male RNs Utilized As Orderlies	2.58	2.33
V61 Based On Nrs Opts Enc More Male	3.18	3.52
V62 Unit Assgn Based On Req Not Gend	3.47	3.74
V63 Female RNs See Male RN As Threat	2.92	2.24
V64 RNs Move Spec Area Inc Prof Cont	3.55	3.86
V65 Female RNs Better Able Emotional	2.95	2.78

Table E-1 - Continued

	N=38 Males 47 Items	N=98 Females 47 Items
V66 Equal Compensation Equal Work	3.74	3.36
V67 Male RNs To Spec Areas More Pay	3.71	3.57
V68 Missed Promotion Based On Gender	2.16	1.64
V69 More Male RNs Improve Pay & Wrk	3.71	3.67
V70 Complete Based On Inequity Reward	2.08	2.54
V71 Male RNs Assigned Pts Move/Lift	3.61	3.10
V72 Male RNs Conflict Buffer With MD	2.63	2.00

Table E-2

Mean Responses Per Variable: Proximity Gender-Specific (Male vs Female)

	N=38 Males 7 Items	N=98 Females 7 Items
V27 Male Nrs Can Tolerate More	1.47	1.31
V30 Male RNs Will Play Imprt Role	3.18	2.39
V32 Male RNs Better Suited	3.87	3.67
V33 Pts Accept Male RNs	3.79	3.32
V34 Encourage More Men To Enter	4.53	4.16
V36 Female RNs Make Better Nurs	1.92	2.29
V44 Male RNs-Threat To Female RNs	2.21	1.84

Table E-3

Mean Responses Per Variable: Equity Gender-Specific (Male vs Female)

	N=38 Males 14 Items	N=98 Females 14 Items
V26 Male Nrs Head of Household	1.45	1.16
V28 Female RNs Prefer Male Suprvsrs	2.71	1.78
V29 Professional Compet Exists	3.05	2.71
V31 MDs Accept Male RNs	3.71	3.27
V35 Male RNs Perform Nurg	4.34	4.12
V37 Male RNs Receive Higher Salaries	2.11	2.81
V38 Inc Male RNs Lead to Hi Salaries	3.66	3.59
V39 Male RNs Promoted Faster	2.58	3.10
V46 Ideal Gender Composition 50-50	2.95	2.99
V48 Male/Fem RNs Equal For Advance	3.34	3.09
V55 Male/Female RNs Equal Ed Grants	3.55	3.68
V66 Equal Compensation Equal Work	3.74	3.36
V68 Missed Promotion Based On Gender	2.16	1.64
V70 Complete Based On Inequity Reward	2.08	2.54

Table E-4

Mean Responses Per Variable: Role 4 Gender-Specific (Male vs Female)

	N=38 Males 8 Items	N=98 Females 8 Items
V41 Male RNs-Reverse Discrimination	3.34	2.97
V43 Male RNs-Greater Respect from MD	3.40	2.80
V47 Male RN Stereo As Strong By Fem	4.03	3.29
V57 Female RNs Ignore Male Suggest	2.26	2.14
V58 Females Believe Make Better RNs	3.18	2.75
V63 Female RNs See Male RN As Threat	2.92	2.24
V65 Female RNs Better Able Emotional	2.95	2.78
V72 Male RNs Conflict Buffer With MD	2.63	2.00

Table E-5

Mean Responses Per Variable: Role 5 Gender-Specific (Male vs Female)

	N=38 Males 18 Items	N=98 Females 18 Items
V40 Male RNs-Greater Intent Long Trm	3.55	3.07
V42 All Nurses-Full Range of Pract	3.05	3.43
V45 Male RNs Accepted By Pt Reg Gend	3.21	2.87
V49 Staff Nrsg Viable Career Option	2.87	3.25
V50 Male RN Pt Assign Based On Gend	2.71	2.78
V51 Male RN Spec Area To Reduce Strn	2.97	3.18
V52 Pt Assign Based On Ability	3.50	3.59
V53 Male RNs Assign Combative Pts	3.90	3.22
V54 Male RNs May Care Elderly Fem	2.16	2.09
V56 Pay Not Sufficient Intrst Males	4.24	3.94
V59 Male RNs Assgn Fem Pts Reg Age	3.55	3.53
V60 Male RNs Utilized As Orderlies	2.58	2.33
V61 Based On Nrsg Opts Enc More Male	3.18	3.52
V62 Unit Assgn Based On Req Not Gend	3.47	3.74
V64 RNs Move Spec Area Inc Prof Cont	3.55	3.86
V67 Male RNs To Spec Areas More Pay	3.71	3.57
V69 More Male RNs Improve Pay & Wrk	3.71	3.67
V71 Male RNs Assigned Pts Move/Lift	3.61	3.10

Table E-6

Mean Responses Per Variable: Fotall Gender-Specific (Male vs 1989 Female)

	N=38 Males 10 Items	N=98 Females 10 Items
V26 Male Nrs Head of Household	1.45	1.16
V27 Male Nrs Can Tolerate More	1.47	1.31
V28 Female RNs Prefer Male Suprvsrs	2.71	1.78
V29 Professional Compet Exists	3.05	2.71
V30 Male RNs Will Play Imprt Role	3.18	2.39
V31 MDs Accept Male RNs	3.71	3.27
V32 Male RNs Better Suited	3.87	3.67
V33 Pts Accept Male RNs	3.79	3.32
V34 Encourage More Men To Enter	4.53	4.16
V35 Male RNs Perform Nurg	4.34	4.12

Table E-7

Mean Responses Per Variable: For all Same Gender (1973 Female vs 1989 Female)

	N=38 Males 10 Items	N=98 Females 10 Items
V26 Male Nrs Head of Household	1.61	1.16
V27 Male Nrs Can Tolerate More	1.92	1.31
V28 Female RNs Prefer Male Suprvsrs	2.30	1.78
V29 Professional Compet Exists	3.25	2.71
V30 Male RNs Will Play Imprt Role	3.92	2.39
V31 MDs Accept Male RNs	3.62	3.27
V32 Male RNs Better Suited	3.48	3.67
V33 Pts Accept Male RNs	3.93	3.32
V34 Encourage More Men To Enter	4.30	4.16
V35 Male RNs Perform Nurg	4.45	4.12